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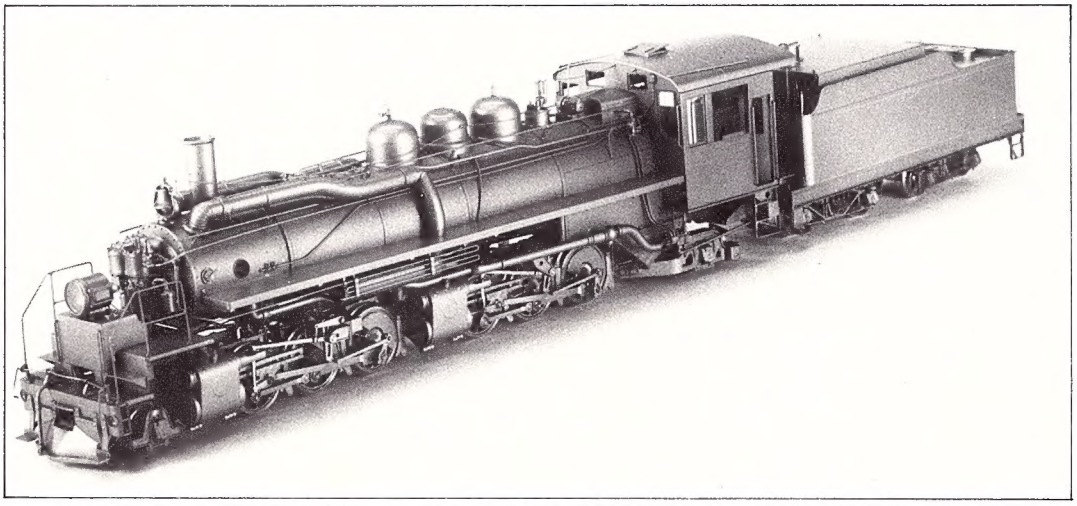

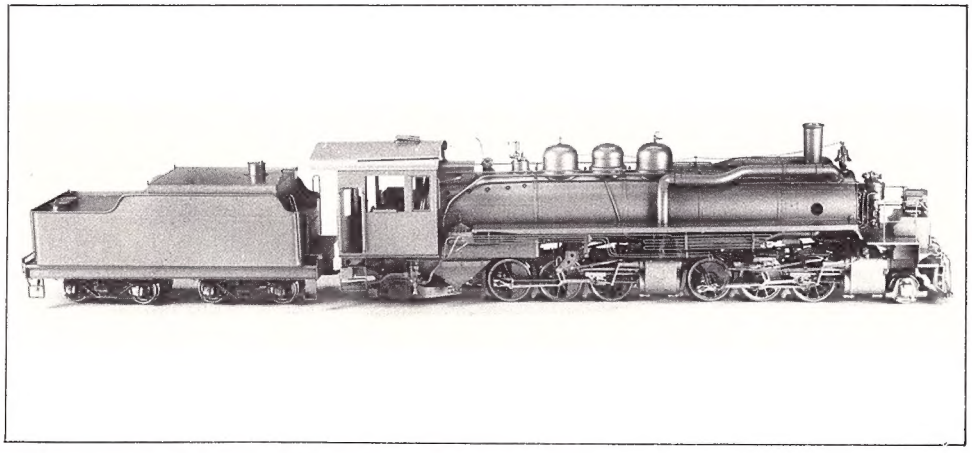

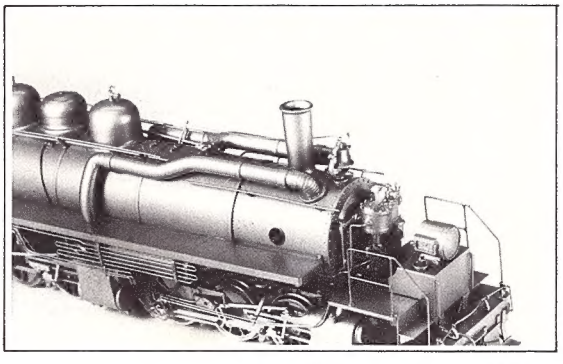

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NARROW GAUGE AND SHORT LINE GAZETTE

JULY/AUGUST 1981 VOLUME 7, NUMBER 3

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COVER

Malcolm Furlow photographed this little Shay on her "wrong" side as she eased across a short trestle on his HOn3 Denver & Rio Chama Western. Notice the beautiful water and the embedded clutter in the river.

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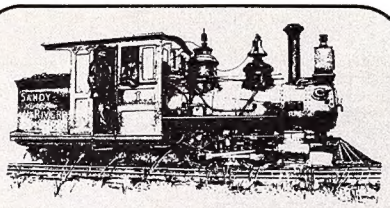

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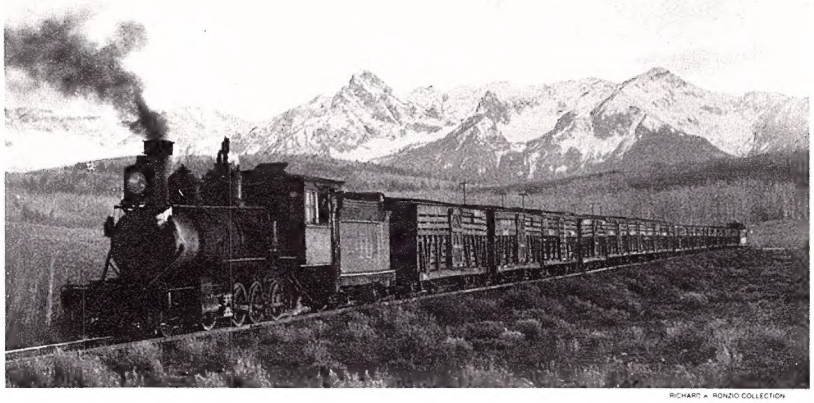

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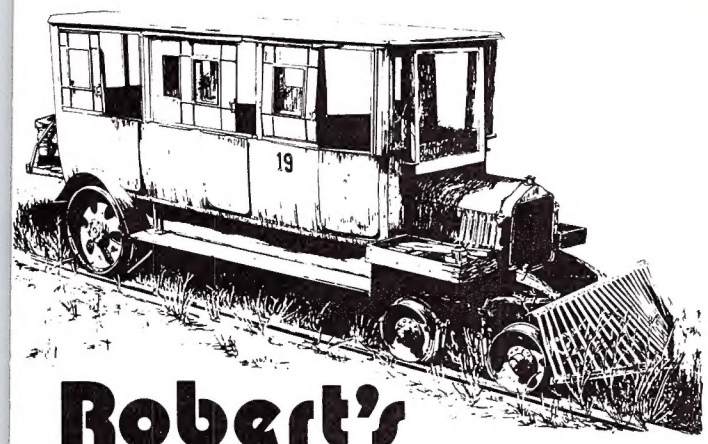
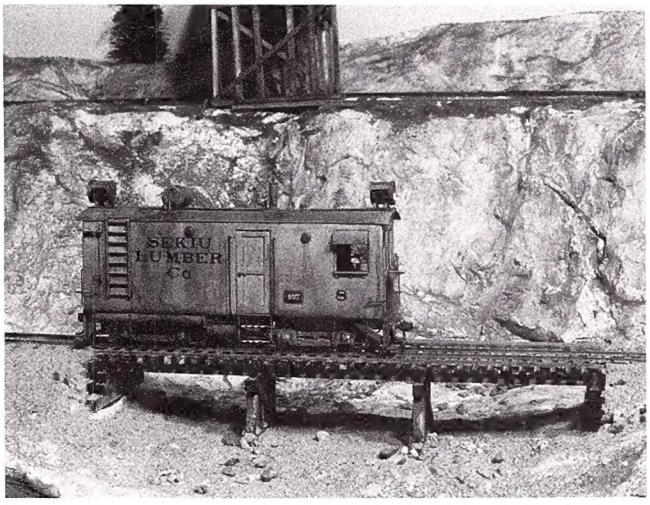


Robert's Ramblings....

See you in San Mateo August 18 – 23 and don't forget the National Narrow Gauge Convention Oct. 7 – 10, 1981.



This On30 locomotive was built by Jeff Saxton for a planned California logging road. Jeff will have a module at the upcoming Narrow Gauge Convention in St. Louis. *Photo by Craig Brown.*

John Kalin's San Juan Southern is an Sn3 layout that will be on display at the Narrow Gauge Convention this coming October. *Photo by Craig Brown.*

I have been called the ultimate "Rubber Gauger". I do get excited about different scales and gauges and I try to sample as many of them as possible. It helps when you are editing a magazine covering so many different scales and gauges. I guess it's O.K. since I do come back to earth from time to time and work on Tuolumne Forks and Phillips. I will be presenting several unusual "alternative approaches" in the next few issues. There will be plenty of information on the old favorite gauges of course but I want to show you some of the modeling being done by the large scale modelers and some work being done by those working in Nn3.

About a year ago I was sent an LGB catalog and was amazed by the number of parts available from this company. I had always thought of LGB as an expensive "toy" and had merely glanced at the equipment when I saw it in a toy store or large hobby shop. However, a close look at their catalog changed my attitude. LGB offers a real opportunity to the modeler who wants to build in a large scale but does not want to scratch-build every part himself. I know of several modelers, including myself, who talk about large scale but never really get on with building any models. Turning wheels, obtaining drivers, building mechanisms and getting trucks are all very difficult problems. Large scale is easy to talk about but hard to build. I know of several large scalers who are casting their own trucks and turning their own wheels but they are very scarce. LGB offers the modeler a chance to use LGB mechanisms, trucks and wheels and scratch-build the rest. I asked Marc Horowitz to write an introduction to LGB in this issue and I plan to write up some of the mechanisms, trucks, and wheels in the September issue. Then I will follow up with a description of some scratch-built models I have completed including a styrene model of Mich-Cal #11 which came out very nicely.

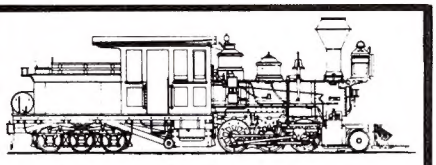
I also have several fine articles on Nn3 coming up in future issues. Tom Knapp has several articles on Nn3 in general and his prize winning models in particular ready for print. For those of you who want to model little narrow gauge trains being dwarfed by the Rocky Mountains Nn3 may be for you. In the last **GAZETTE** I had two photos showing a model of the Silverton yard in 1913 which only took up a space of two feet by eight feet.

I want to invite all of you to the NMRA Convention in San Mateo, California in August. Tuolumne Forks and Phillips are on the layout tours and I hope you will come by our home and say hello. The **GAZETTE** will also have a booth in the manufacturers' exhibit so make sure you come by there and say hi if you can't get on the layout tour. There will also be a Fine Scale Room at the convention with several layouts and scenes including a model of each end of the Kennebec Central in On2 by Bob Schlechter and Bernie Lewis. Barney Daehler will have an operating Sn3 layout and Dick Christ will have his On3 logging scene on display. There will be other models in the room and I hope to have a display of the pioneering models built by the late Hugh Boutell. So come and visit.

Remember the Porter Contest announced in the last issue. Get a Grandt Line Porter and have at it. You may win your choice of $100.00 worth of Grandt Parts. Kind of like being let loose in a candy factory!

It would help us if you would write on several pieces of paper when you write and ask for several things. In other words, if you order back issues, and send in a Riptrack please do it on two pieces of paper, each with your name and address. It's amazing how many readers write with no return address on the letter, envelope or check. Also, if there is a problem with your subscription please do not wait a year to contact us about it. It really makes a lot of unnecessary office work. We would prefer to spend our time improving the **GAZETTE** rather than dealing with problems.

Bob Brown



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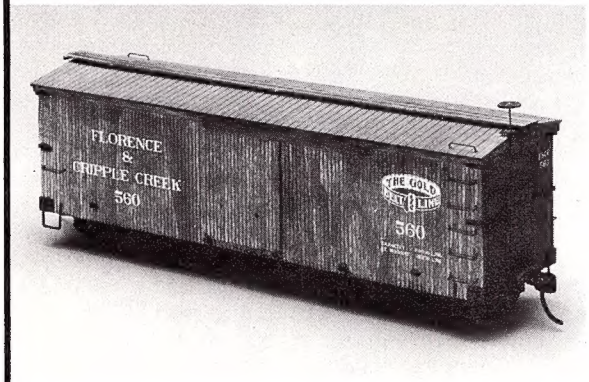

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The Pigeon Hole

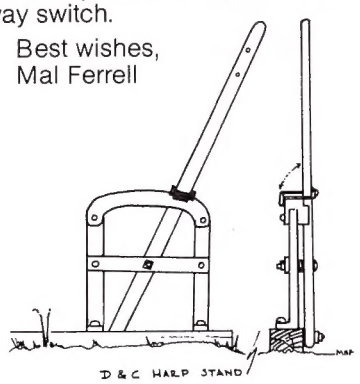
Dear Bob;

Just a note to tell you that I enjoyed the latest (Mar/Apr) issue of **GAZETTE**. It just keeps getting better and better! Also would like to add a few comments that might be of interest to your readers.

On Harry Brunk's nice story (Part 8) on the "Bull Durham" building in Black Hawk: This building was started in 1870, and it took eight years to complete (finished 1878). Originally it was the "Fick Wagon Works", and was built by William Fick. Now Fick was a "fink!" Mr. Fick built huge ore wagons in his Black Hawk shop and was very much opposed to the two foot gauge Gilpin Tramway Company. Fick had an advantage for a while, in that he was the Mayor of the town and was successful in keeping the GT out of the "city limits", and so the new two footer built their shop and enginehouse in a former barn on what was known as Upper Clear Creek. On April 6, 1888 Mayor Fick was even on hand with "his" Marshall to stop the construction of a third (2') rail on the three foot gauge Colorado Central's line. As soon as the Gilpin Tram started operations, the teamsters were doomed by lower freight rates of the narrow gauge, and the *Idaho Springs Gazette* soon told of the departure of the ore wagons for greener pastures in Aspen. In later years the "Bull Durham" building housed the "Black Hawk Blacksmith & Carriage Works" (they built wagons) and still later, in the 1920's it was still a Blacksmith shop.

On page 7, Ken Schmelzer asked about the style of switchstands used on the three-way stub switches of the Diamond & Caldor Ry., at Diamond Springs, California: I am enclosing a drawing of a D&C strap-iron switchstand, used on the enginehouse lead at Diamond Springs. This was a commercial stand, but I do not know which company supplied this type, which was common in the 1890's on such other lines as the Nevada Central and Carson & Colorado. (The targets were different on each road.) I don't know what type of stand the Mich-Cal used. They seemed to have preferred the "ground throw" variety, but these obviously will not work on a three-way switch.

Best wishes,
Mal Ferrell



Dear Bob,

In the Mar/Apr issue Charlie Getz mentions in the Narrow Gauge Scene "that he doesn't know of any kit offerings of the 4000 series D&RG boxcars". Since I have a whole closet of yet-to-be-completed kits I decided to look. Sure enough– I have a Con-Cor #HOn3-11B kit of 4078. It has prepainted and lettered sides and appears to be of about the same quality as La Belle wood kits. I got it in the early 1970's from an Eastern hobby shop. The owner told me that he had the kit in stock for several years. The kit sold for $3.45.

Sincerely,
Bill Jacobs

Dear Mr. Brown,

Thanks for the steel hopper article and plans. I would like to add a few more bits of information.

The Yreka Western still had one of these cars on the property in June, 1980. Its condition is more nearly original than the car in the drawings (which also represent the Amador Central cars), since the slope sheets are still supported from the bolsters by two pressings. The upper, smaller of the two is shown by the drawing, but support is now provided by two sets of angle struts.

Ten or so years ago, the McCloud River had some similar cars which had had the hopper doors changed to spread ballast. These cars are also historically important, since they represent a competitive response to Pressed Steel. The original PB&LE orders as well as the GN orders were placed with Schoen and also with Carnegie, but for cars fabricated from standard rolled beams channels, angles, and plates. The trucks were more nearly a standard arch bar, with the top chord a rolled channel. I have been unable to find the original lightweights of each version; it would be interesting to see if the effort to tool up for specific pressed pieces paid off in weight savings.

The T&G car pictured is very similar to cars on the BA&P which were in daily service into the seventies (and may still be?). The BA&P cars were not interchanged, so could keep the "Schoen Pressed Steel Diamond Trucks" for as long as they lasted; they were still being maintained in 1970.

Modelers should consult the article by John Chapp in an old issue of **MODEL RAILROADER**, which described construction of a ¼" scale model of the PB&LE pressed steel cars in styrene.

To change the subject to nits, the Saratoga Mine deserves a better bridge for the tramway. Full size timber simply can't resist the loads and stresses indicated by the arrangement of members shown: the bridge would quickly collapse under self weight. For a more reasonable representation, let the endposts bear directly onto the piers, add lower tension chords so that the stringers support the track but don't act as part of the truss, replace the diagonal tie rods with posts; use the tie rod vertically, add a top chord between the apexes of the two existing trusses.

Sincerely,
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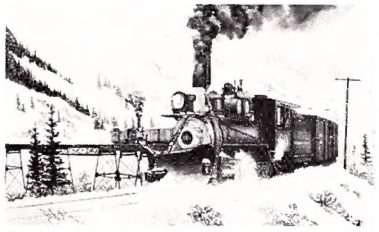

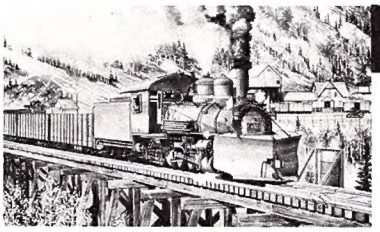

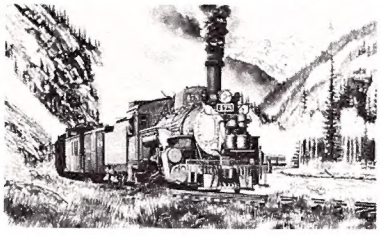

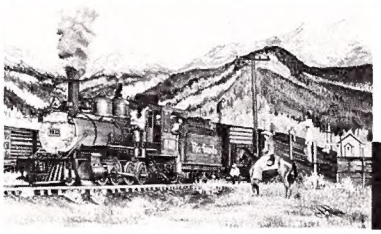

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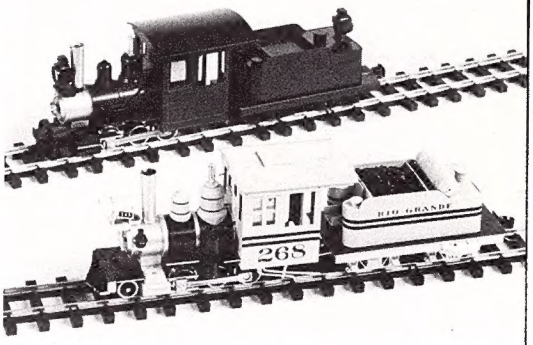

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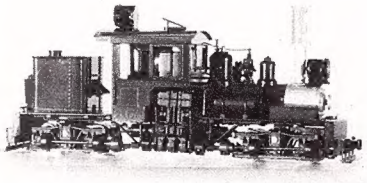

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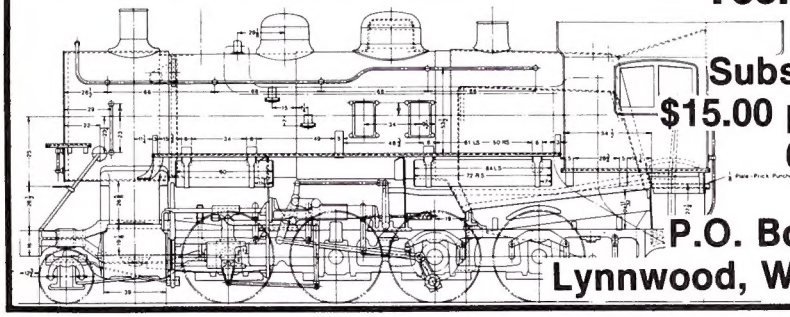

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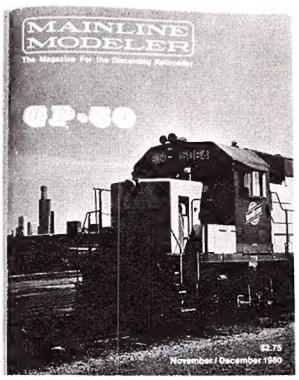

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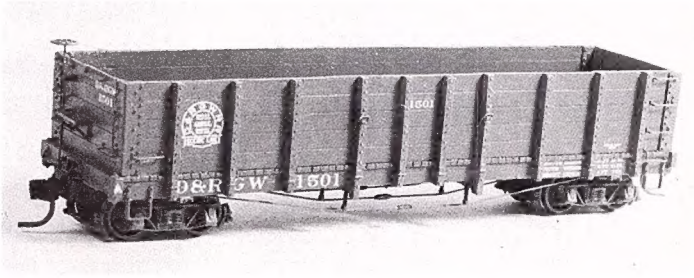

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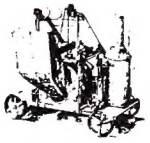

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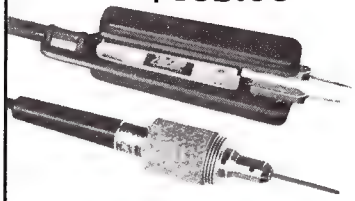

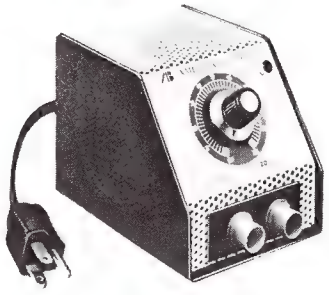

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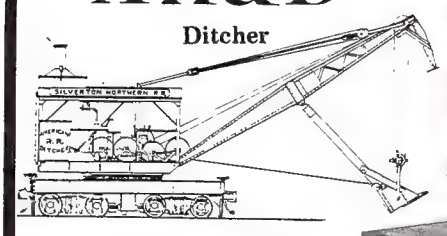

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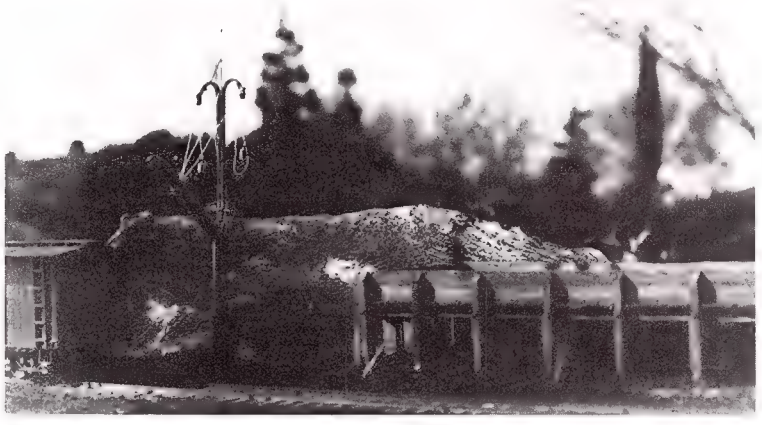

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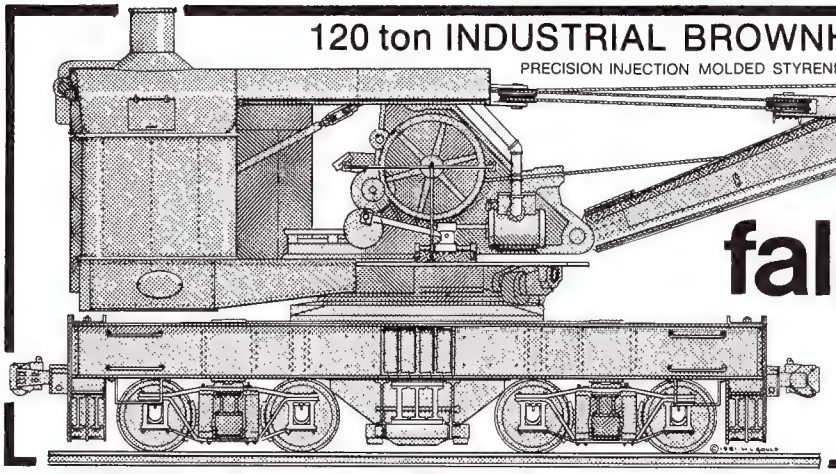

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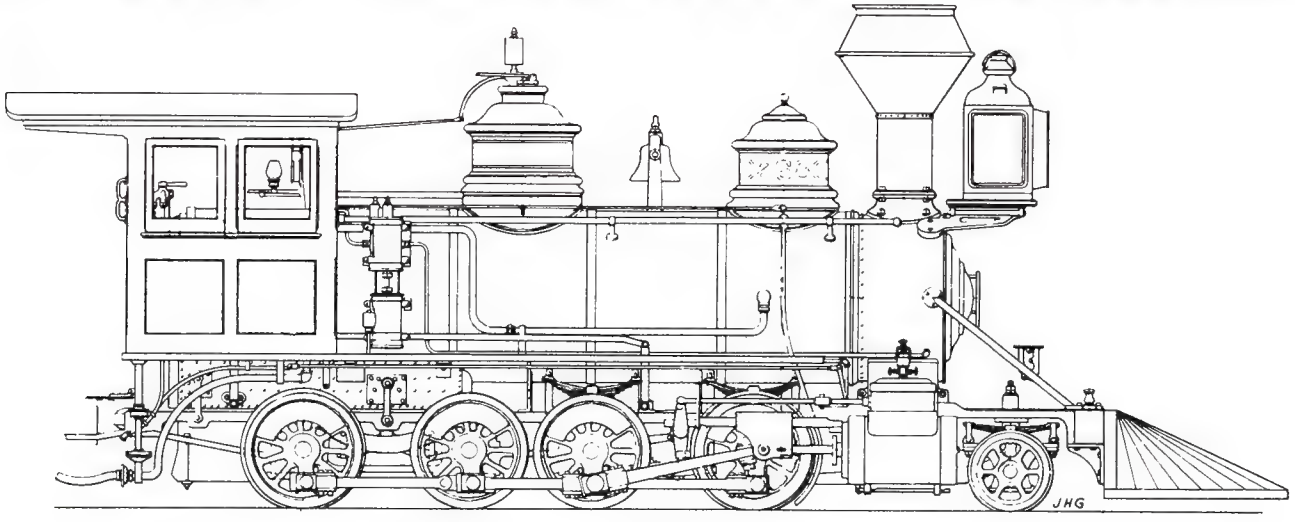

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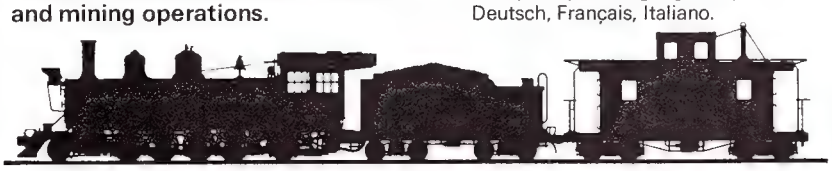

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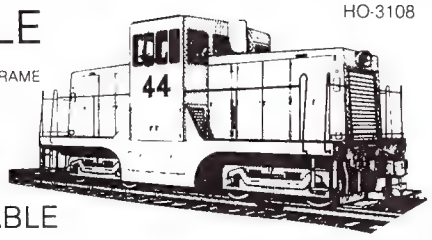

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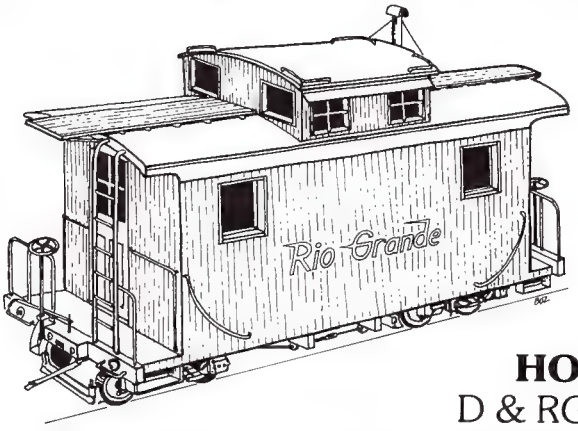

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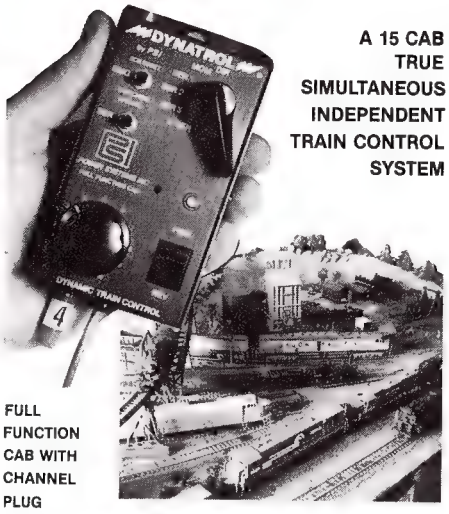

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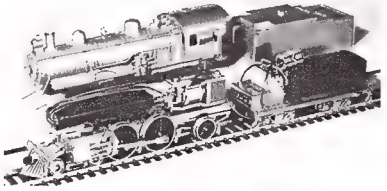

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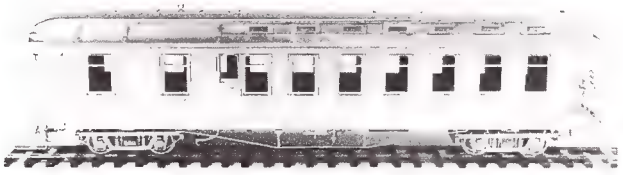
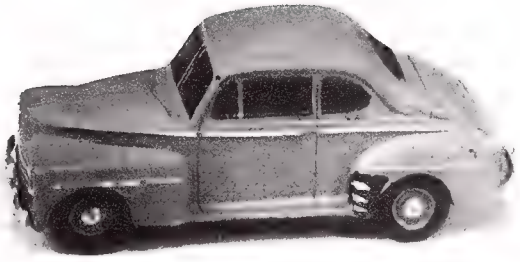
NEW in REVIEW

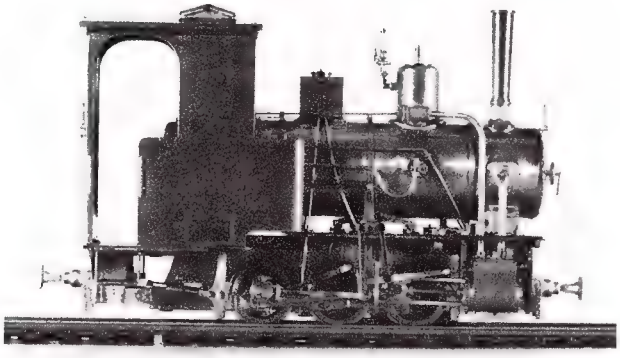
Precision Scale Co., 1120-A Gum Ave., Woodland, CA 95695 has a new On3 D&RG Buffet/Parlor car available. It was made in Korea by Lhee Do. This model forms part of the San Juan train. The model comes assembled with the trucks mounted on the car. The couplers, lifting bars, drum head for the end of the train, brake shoes and brake beams are provided but have to be added to the car. This model is very cleanly assembled. The sides have photoengraved wood grain but in my opinion it is not as pronounced as the grain found on previous imports from Precision. I find the grain pattern to be just about right. The clerestory windows have fine brass mesh in them and the end door and one vestibule door work. The windows appear to be brass castings. The whole car is very strongly made, square, and clean. The superstructure unscrews from the floor. There are no obstructions inside the car to interfere with an interior should you want to add one. If you want to have a San Juan train look into this fine import. *Bob Brown.*





Magnuson Models, Box 199, Lake Villa, IL 60046 is offering this semi-clear epoxy cast automobile. You merely paint the body leaving the windows a nice opaque finish. Separate metal wheels and bumpers are provided. These well detailed cars sell at two for $5.95. A 1939 Chevy sedan and 1953 Chevy Bel Air are also available. *Charlie Getz.*

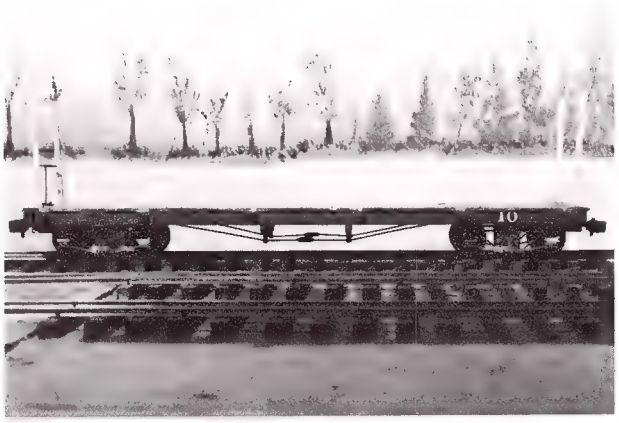
Flying Zoo, Shokichi Room 202, 3-61-31, Izumi, Suginami, Tokyo 168 Japan is continuing to market the Sango HOn30 and On30 and On2 kits. One of their latest On30 kits makes up into a Koppel 0-6-0. While this locomotive may seem foreign I do know that Koppel was distributed in this country and may even have been manufactured here. I have several catalogs for industrial Koppel products. They sold industrial railroads complete with "snap" track, cars, turntables, and locomotives. This Sango model would be at home on an American industrial line, a quarry line, in a mine, or in the woods. I did not assemble my sample. It consists of dozens of small brass coinings, stampings and lost-wax castings. The instruction book is in Japanese and takes some study. If this model is anything like Sango's Kiso Logging Railway 0-4-2T it will assembly easily if you can do simple soldering. The Koppel kit is extremely detailed and has a complicated valve gear, brake rigging, extensive piping and all the other little bits and pieces that make some European locomotives such complicated looking machines. The Sango kit has a can motor and a completely hidden drive. The kit sells for $199.95. You can order direct or try **Coronado Scale Models** in Phoenix first. *Bob Brown.*

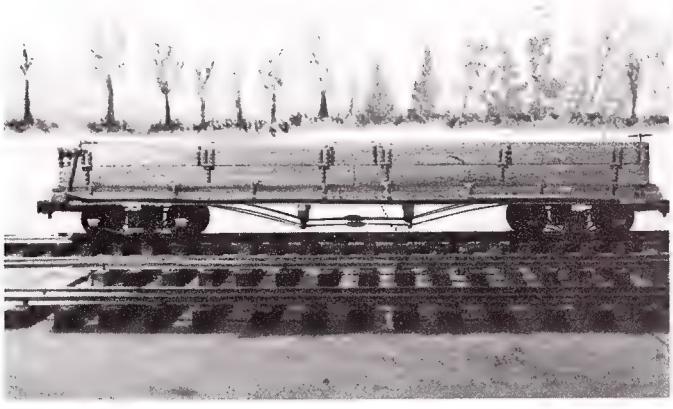


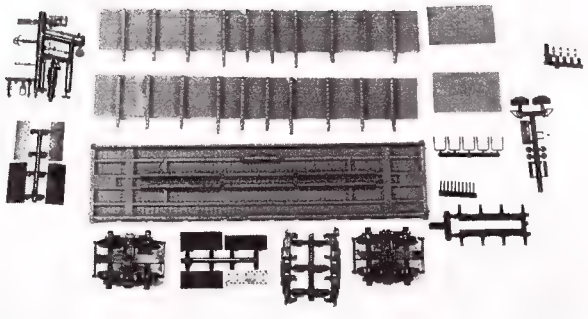
Sandy River Car Shops, 567 Rockdale Ave., New Bedford, MA 02740 has several new On2 kits available. The first is for a Wiscasset Waterville and Farmington 28-foot flat car. These cars were built in 1894 and were later converted into boxcars. The kit consists of individual strips of wood for the body sills and decking. The details consist of white metal castings for the body bolsters and plastic injection moldings for the stake pockets, nuts and bolts, brake wheel, turnbuckles, and truss rod pedestals. Full size plans and clear instructions are also provided. The kit sells for $10.95 less trucks and couplers.

Sandy River also has a Kennebec Central coal gondola kit available for $14.95 less trucks and couplers. This kit is also made up of individual strips of wood with the usual white metal and plastic details. However, a special set of drop side hardware is provided for this car.

Another new kit from Sandy River is their new Strong Creamery. The kit makes a building that is 6 inches by 14 inches by 5 inches tall. It sells for $34.95. *Bob Brown.*







Clear Creek Models, 42 Greendale, St. Louis MO, 63121 has a new gondola kit in HOn3. Though I understand it will be soon offered as injection molded styrene, the version I obtained at the local hobby shop has epoxy floor, slides and ends. I got the "deluxe" version with cast-in weight, Grandt trucks and Kadee couplers. All kits come with Grandt detail parts, wire for grabs, and Thinfilm decals. In starting assembly, be very careful trimming the excess – I used nippers and split the sides. I glued them back, but the crack does show. Use an X-Acto knife, carefully. The instructions call for ACC assembly, but I found it didn't hold as well as epoxy or Goo. The sides and ends fit well, and I see no major construction problems. The epoxy used contains some form of metal with wire reinforcement in the stakes. This strengthens the castings, and nicely weights the finished model. The grabs must be bent from wire provided, which is the only tedious part of assembly. You'll be pleased with the finished car. Check the ads for prices of the versions available. *Charlie Getz.*

Sunset Models, 138 W. Campbell Ave., Campbell, CA 95008, has imported an On3 model of Westside Lumber Co. #12 three-truck Shay. The model represents the first venture (in ¼ inch scale) into the roster of WSL Co. three-truck Shays. Logging railroads had a variety of unique equipment and Westside was no exception. Hopefully response to this model will encourage Sunset to produce other WSL Company shays.

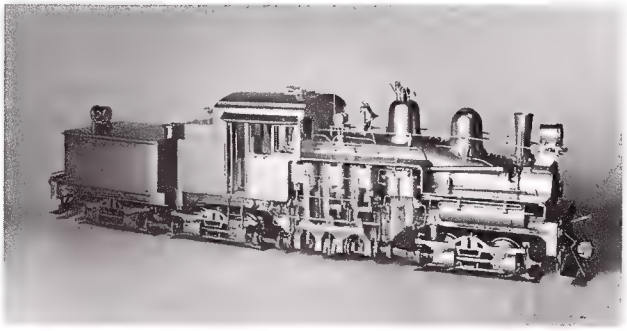
The Westside Lumber Company Shay #12 was a second hand acquisition from Swayne Lumber Company in May 1940. She was originally built for Swayne on April 21, 1926 as their #6. This 60 ton Shay had 32 inch drivers, cast steel trucks, 11 × 12 cylinders, originally built with slide valves later rebuilt by Swayne with piston valves, and a feature later to make her unique on the Westside roster – a girder frame.

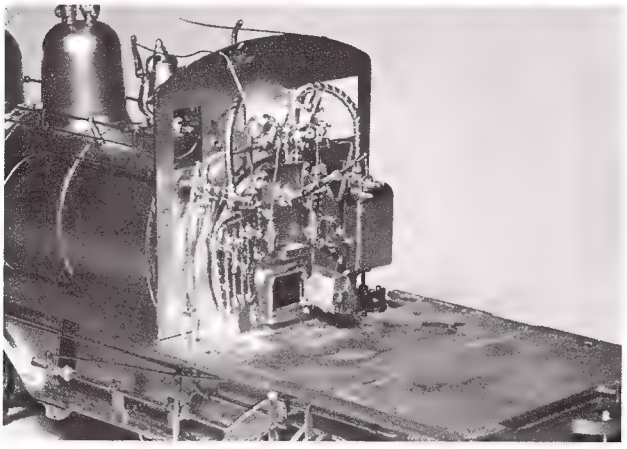
The Sunset model was fabricated and assembled in Korea by Samhongsa and is composed of the usual combination of sheet brass, turnings, coined parts, and lost wax castings. The assembly work exhibits good craftsmanship with few excess solder joints, or tool marks. The model is well detailed and compares favorably with prototype photos and known dimensions.

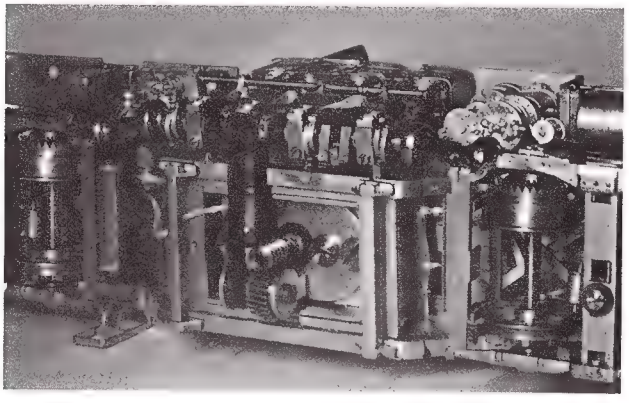
The drive mechanism consists of a 22mm Canon motor mounted vertically in the firebox driving a worm and spur gear. The spur gear is a two stage gear which drives a toothed belt connected to another spur gear on the crankshaft. The trucks are sprung at both the frame bolster and non-geared side. Drivers have brass centers and steel tires with prototype bevel gears. The running gear functions smoothly with very little noise over a full range of prototype speeds. The model easily handled #6 turnouts and a 36-inch radius.

The model has a number of interesting features such as spoked wheels and removable sand dome cover. A removable cab exposes a detailed backhead and facilitates painting. The cab doors and roof hatch are hinged as is the firebox door. The cab windows also slide.

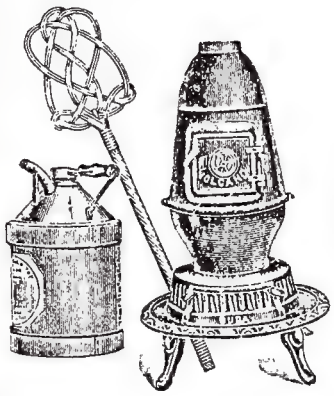
My overall impression of Sunset's WSL Company #12 is good. Logging railroads and their equipment have much to offer modelers. I hope an enthusiastic reception of this model will lead to future On3 shays from Sunset. *Lee Gustafson.*







Laughing Whale Studio, Box 191 Wiscasset, ME 04578 has some ¼ inch scale boat kits. They have a sloop, lobster boat, and a tugboat. These kits make into waterline models perfect for model railroads. The kits sell for $8.95 each. Each kit consists of a wooden hull bottom and wooden transoms or cross profile pieces. You wrap printed cardboard pieces around this wood form to make up the hull. The decks are printed cardboard. All this cardboard has to be cut and painted. Each kit comes with full drawings and instructions as well as detail parts such as barrels, anchors, and twine. I have not assembled one of these kits yet. The photo is by Stephen Rubicam. *Bob Brown.*



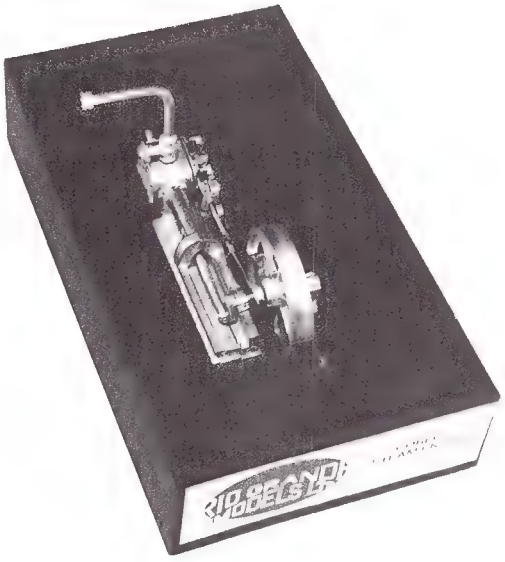
Bits & Pieces

What's New in Detail Parts

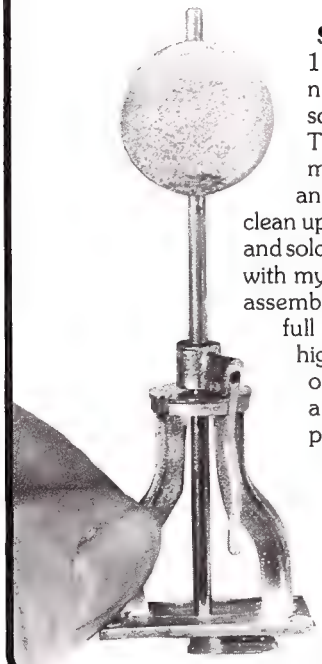
by Bob Brown

Illinois Hobbycraft Inc., Aurora, IL 60505 has a new HO scale street lamp available. The lamp is 27 feet high in HO and about 14 feet tall in O scale so it is really a multi-scale kit. My kit assembled quickly and easily. Each lamp post consists of a main post, a shade, a base, and a bulb with wire. You merely clean up the white metal castings and make sure the shade and base fit onto the post. Then you thread the bulb into the shade, thread the wire through the top of the shade, and glue the shade onto the post. I used Super T Hot Stuff. The post has two grooves cast into it. The wires thread nicely into these grooves. A few touches of Hot Stuff will hold the wires in place. Thread the wires through the base and you are ready to paint your lamp post. Each kit sells for $3.95 and is wired for 12 volts.

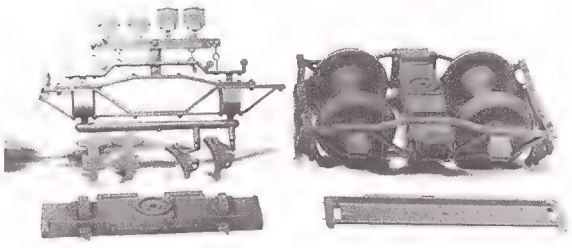
Rio Grande Models, Box 463, Agnew Station, Santa Clara, CA 95054 has released their new HO scale Corliss steam engine kit. This large steam engine would see service in a saw mill or some other industrial building. The kit is also usable in S scale and O scale for smaller steam engines. It is composed of well detailed white metal castings. I assembled my kit in about 30 minutes not counting painting. I had no problems with the kit or the instructions. The kit sells for $12.95.



Sidestreet Bannerworks, Box 17473, Denver, CO 802017 has a neat little (well not so little) ½ inch scale lost-wax brass switch stand kit. The kit consists of five brass investment castsings, a piece of brass rod, and a set of instructions. You have to clean up the castings, cut the rod to length, and solder the kit together. I had no trouble with my kit. It took me about an hour to assemble the switch stand. The model is full working and about three inches high. These kits sell $33.50 for three or $12.50 each. You ½ inch scalers and LGB fans should look into this product.



Russ Simpson, Box 256, Smith Flat, CA 95727 has a new On3 West Side freight-logging truck kit available. This unique kit is made up of many detailed plastic castings which have to be cut from their sprues and assembled. I assembled one truck in about 30 minutes. I could do it faster now that I have one truck under my belt. The kit has brass spring stock for the springs. These have to be cut to length. The rest of the kit consists of plastic parts such as the two piece bolster, the side frames with separate vertical braces, journal box lids (two kinds), bolster end straps, and brake beams. The brake beams have separate brake shoes. The kit comes with brass bearings which fit into the backs of the journals. The wheels are plastic with metal axles. The trucks sell for $12.00 per pair.



In Brief...

Rio Grande Models, Box 463, Agnew Station, Santa Clara, CA 95054 has several new items in Sn3. They are now shipping their D&RGW type 4 caboose hardware kit. It includes side windows, cupola windows, doors, steps, needlebeams and stack for $6.95. This set fits the Tomalco long caboose. Also new is the 24-foot West Side Lumber Co. standard flat cars. They will come 3 to a package less trucks. You get cast bolsters, coupler pockets, nut/bolt detail, brake gear, Kappler wood and decals. $13.95 for the three cars. A beautiful Sn3 F&CC boxcar is also ready. It is complete with trucks and decals for $17.95. The D&RGW steel flat cars are also available for $17.95 with trucks and new styrene stake pockets by Grandt. Looks like Sn3 is booming ...

Detail Associates, Box 197, Santa Maria, CA 93456 has their new N gauge log car out. This simple little kit consists of four white metal castings, some wire and a set of instructions. The car is based on the Pacific Car & Foundry type used in the Pacific Northwest ...

The Crossing Gate, 6468 Moraga Ave., Oakland, CA 94611 has their new On3 idler flat car out. This car was used between open-end gondolas to ship long lengths of pipe on the Rio Grande. The cars were cut down from cattle cars and boxcars and were reinforced with lengths of rail strapped along the underside of the sides. The kit is the usual excellent quality all-styrene kit we have come to expect from the Crossing Gate. The sills are pre-cut and the deck is made of several sheets of scribed styrene. The details are Grandt styrene castings, the trucks are also by Grandt. Rail is provided for the reinforcing pieces. The instructions are detailed and need to be followed ...

Flying Zoo, Shokichi, Room 202, 3-61-31, Izumi, Sujinami, Tokyo 168 Japan, reports that the HOn30 SR&RL #18, an outside frame 2-6-2, should be available late this year or in early 1982. The SR&RL passenger cars should be available soon ...

McKenzie Iron and Steel Co., P.O. Box 3695, Eugene, OR 97403 continues to expand its line of ¼ inch and HO scale plans of logging and M of W equipment. Upcoming are skidders, Weyerhauser snow plow and caboose, fishing vessel, pile driver, car ferry and ramp. Write to them for details ...

Keller Engineering, 200 San Mateo Ave., Los Gatos, CA 95030, has markedly improved their "On Board" sound and control system. This solid state simplified control system has a touch-style keyboard controlling acceleration-deceleration as well as sound functions. Both steam and diesel sounds are available. There is also an exhaust and new air pump sound. An improved bell and whistle are planned. Modules will fit in an HOn3 C-16. The real plus of this sytem is its simplicity. Write to Keller for details and prices ...

Kalmbach Publishing Co., 1027 N. 7th St., Milwaukee, WI 53233, has published a new book on John Allen's wondrous modeling. It should be available soon for about $20.00 ...

Jordan Products, P.O. Box 1895, Sta. A, Canton, OH 44705 has a new HO scale 1940 Ford kit available with a separate engine casting. They have discontinued their Budweiser beer wagon, horse drawn hearse, and palm trees

M. F. Kotowski, 21 N. Harrison Ave., Suite 200, Campbell, CA 95008 has a new set of drawings, including one of D&RGW K-36 #488 as advertised in the last issue of the **GAZETTE** ...

Scale Modelers Industries, Box 101, Clementon, NJ 08021 has quietly produced some terrific O scale structure and bridge kits. They have a very nice Chama/Durango style plastic sandhouse kit made out of a foam-like plastic. It sells for $29.95. They also have a brick enginehouse (3 stalls) for $199.95 with extra stalls at $49.95 each. Other kits include a brick factory ($74.95), wood trestle (wood, $29.95), industrial water tank ($29.95) foam tunnel portals, a single dome tank car in standard gauge and a number of loads for hopper cars ...

Railway Engineering, who make those nice Sure-Action switch machines and other track products have a new address. Write to Box 20877, Reno, NV 89515 ...

V&T Shops, Box 5597, Reno, NV 89513 has several new products available in HO, S, and O scales. In HOn3 their new urethane derelict C-16 comes with a detailing kit to turn an inside frame MDC 2-8-0 into a C-17. Both the derelict C-16 and the C-17 conversion kit are included for the single price of $35.00. Each is also available separately. In Sn3, an SP whaleback tender is ready with an engine to follow. The AHM Heisler conversion kits for On3, On30, On2, and Sn3 are still available. A 5 ton On3-30 inch steel ore car is on the way ...

Northwest Shortline, Box 423, Seattle, WA 98111 has a new 45 ton diesel in O/On3. The price is around $325.00. Their new Sensidrill drill press should be available by the time you read this ...

Thomas A. Yorke, Box 65, Sunland, CA 91040 has issued his O scale Surry Parker log loader. The kit consists of stripwood, special white metal castings, styrene detail parts and plaster water tank. The kit is designed to fit a C.H.B. hoist engine kit (which does not come with the Yorke kit). This unusual loader should look at home on any logging line. Tom also has a new line of West Side Lumber Co. tank cars coming out in On3 including numbers 1 and 4. The onion dome building in HOn3 and On3 is planned for later this year ...

Whiteground Model Works, Box 273, Randallstown, MD 21133 has a new Maryland & Pennsylvania Notch Cliff passenger shelter available in HO. The kit is made up of plaster castings, basswood, Campbell shingles, and cast metal milk cans. This little structure occupies a space about 2 inches by 10 inches including the platform. The shelter sells for $14.95 ...

Crankcase Productions, 828 Arguello, Pacifica, CA 94044 has released the first in a series of structure plan packs. The plan packs are by Mic Greenberg. The first plan is for a five-post shed which was shown in the March 1981 **GAZETTE** in Mic's Shop Talk. The next building in the series will be a pump house. The first plan pack consists of complete full size elevations and instructions, a scale model poster, pen and ink drawings, a backwall template, a list of the wood needed to build the shed and a 3×5 full color print of the model. The HO plan pack sells for $2.75 and the O scale version sells for $3.50 ...

The 009 Society, 22 Lowther Grove, Garforth, Leeds LS 25 I EN, West Yorkshire, United Kingdom has a newsletter worth looking into. The Society is devoted to modeling in 009 which is about the same gauge as HOn30. The newsletter is well done and consists of articles, and reviews about 009. Send $14.00 to the Society for an airmail subscription ...

Narrow Lines, 3 Arnhem Way, Woodhall Spa, Lincs. LN10 6TJ, UK is starting into its second year. The magazine is growing and is must reading for anyone interested in 7mm narrow gauge. The emphasis is on British prototype. The magazine consists of articles, news and product reviews. There is an American column. Write to the above address for overseas rates ...

FIRST ANNUAL GAZETTE/GRANDT LINE
PORTER 0-4-0 LOCOBASHING CONTEST

Last issue I announced the start of our First Annual **Great GAZETTE/GRANDT LINE** Porter 0-4-0 Locobashing Contest. Here is a challenge for all of you On3 modelers. Maybe some of you in other scales and gauges will give it a try. We dare you!

Here are the rules:

1. A Grandt Line Porter 0-4-0T must be used as the basis of your conversion.
2. Parts by any manufacturer, or scratchbuilt parts can be used in the conversion. Use your imagination. You may change the wheel arrangement if you wish.
3. Fidelity to a specific prototype is not required. Build what turns you on.
4. The conversions can be made to any scale and gauge. If you non-On3 modelers can come up with a conversion to your scale so much the better.
5. Entries shall consist of sharp black and white photographic prints (any size) showing your model along with a brief typed explanation of your conversion. You may send in color slides but not as substitutes for black and white prints. *Do NOT send in your engine.*
6. The **GAZETTE** retains the right to publish any part or all of the photos or descriptions at our standard payment rate. Photos will not be returned. **GRANDT LINE** retains the right to use photos and descriptions in their advertising. Full credit will be given for any material used.
7. The **GAZETTE** will acknowledge any entry if it is accompanied by a stamped self-addressed post card or envelope.
8. Entries should be sent to **GAZETTE/GRANDT LINE** Locobashing Contest, c/o Benchmark Publications, Drawer S, Los Altos, CA 94022. All judging will be done by members of the **GAZETTE** staff and **GRANDT LINE.** All decisions of the judges will be final. Judging will be based on originality, execution, and appearance.
9. Final entry date is Nov. 1, 1981. Winners will be announced in the January 1982 **GAZETTE.**
10. The winners will be notified by mail.
11. Employees of **GRANDT LINE** or the **GAZETTE** Staff (appearing on the masthead) are not eligible.
12. Prizes are: First Place, your choice of $100.00 worth of **GRANDT LINE** parts.

    Second place, your choice of $50.00 worth of **GRANDT LINE** parts.

    Third place, your choice of $25.00 worth of **GRANDT LINE** parts.

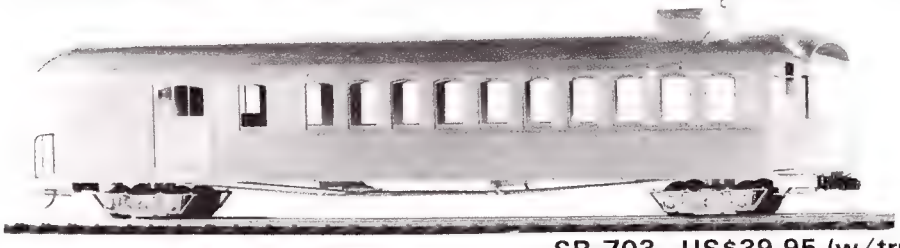
Five High Honors winners will receive a one year's subscription to the **GAZETTE** or an extension to their subscription for one year if they already subscribe. Good luck and get on with it!

SANGO

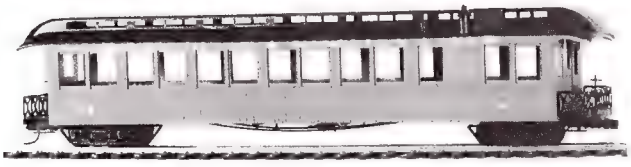
HOn 2½ KITS

NEW

S.R. & R.L. COMBINATION NO.15



SR-703 US$39.95 (w/trucks)

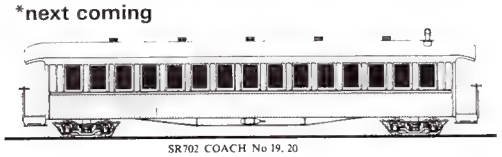


PARLOR CAR SR-701 US$39.95 (w/trucks)

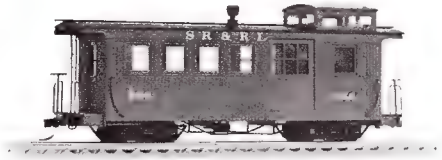
*Pass. Trucks (w/wheels) US$5.45

*Freight Trucks (w/wheels) US$5.45

*next coming



SR702 COACH No 19, 20



CABOOSE SR-401 US$34.95 (w/trucks)

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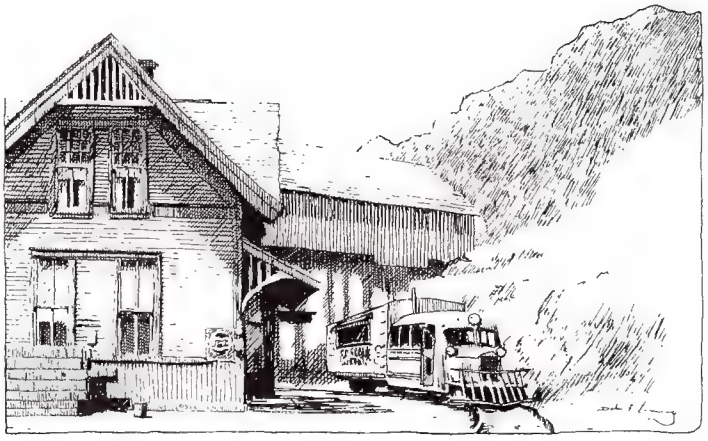
The Narrow Gauge SCENE

by Charlie Getz



NARROW GAUGE GONDOLA CARS

A happy summer to you! If you are a true narrow gauge enthusiast, Professor Sloan's authoritative series on D&RGW gondola cars should be of interest to you. Whether or not you model the "Grande", these cars, or similar ones, were the mainstay of narrow gauge mining roads. According to Dr. Sloan's article on rolling stock percentages (Jan/Feb 1980 **GAZETTE**), gons were a large portion of these roads' rosters. For example, 51 percent of the Rio Grande's narrow gauge car roster were gons (in 1939); 41 percent of the Colorado & Southern; 35 percent of the Florence & Cripple Creek; and 19 percent of the Southern Pacific narrow gauge (for all-time).

It should come as no surprise therefore that there is quite a variety of plans, photos and models floating about for these cars. I've organized the listing by railroad. Of course, this list is *not* exhaustive, though compiling it exhausted me. Corrections, additions and deletions are always welcome. I won't get into prototype histories, nor have I tried to cover every narrow gauge road, or we'd be here all summer.

Denver & Rio Grande Western

As you would imagine, this road leads the pack – in fact, so pervasive is the Rio Grande, it's hard to avoid a gondola plan or kit. By far, the most complete article prior to Professor Sloan's, was published in the August 1978 **MODEL RAILROADER**. Allen Brewster discussed the prototype and Fred Hamilton described construction of his beautiful ¼ inch styrene model. You'll also find a good article by Al Kamm on building a low side gon in the February 1961 **MODEL RAILROADER**. Plans for the #1500-1899 series are avail-

High side gondola #1708 sits at Durango in 1961 waiting for duty. *Photo by Bob Brown.*

able from John Maxwell in ¼ inch (D-124), and were in the Jan/Feb **GAZETTE**. The "Helper", the now out-of-print newsletter for the Rocky Mountain Region of the NMRA, carried insert plans for gons, including a flat outfit car #06299 (insert #26, March, 1960). Maxwell also offers photos of various Rio Grande models. Old time D&RG gon plans can be found in **FINELINES**, Vol. 5 #6 (March 1969); "Helper", insert #30 (Sept. 1960); and from Maxwell, #D-20. Pipe gon plans can be found in **SLIM GAUGE NEWS**, Vol. 1 #2 (November, 1970).

Kits for high side gons and a low side work gon in HOn3, Sn3 and On3 are available from **Tomalco**. In On3, **Simpson** and **Darr Scale Models** once produced kits for a high side gon in wood and styrene. The **Crossing Gate** still offers an excellent all-styrene kit. **Main Line** has a D&RGW gondola (I believe) with prepainted and lettered sides. In HOn3, besides the **Tomalco** kit, **Clear Creek Models** has a new styrene kit for high side gon, and **E&B Valley** is rumored to be planning one. **Empire-Midland** has imported gons in brass.

The more complicated drop-bottom gondola was described in a March 1958 **MODEL RAILROADER** article by Len Madsen, and in a simplified plan found in the October 1955 issue of **RAILROAD MODEL CRAFTSMAN.** Maxwell offers a ¼ inch plan (D-42), and photos. "Helper" insert #5 (October, 1956) contained a brief description, isometric drawings and a plan. The only kits for this model of which I am aware are **R. Robb's** HOn3 all-styrene beauty and **Grandt Line's** excellent On3 kit. Simplified brass imports in HOn3 and On3 were offered by **Empire-Midland.**

Colorado & Southern

Maxwell has four separate plans for the various C&S style gons (#C-1, C-6, C-13 and C-119). **FINELINES** Vol. 6 #3 (September, 1969) also carried a plan. Photos of C&S gon #4319 are available from Maxwell. Earlier DL&G gon plans can be found in **FINELINES** Vol. 4 #5 (January 1968), and Maxwell will sell you a DSP&P gon plan (DSP-4). The **GAZETTE** featured two C&S coal gons by Harry Brunk in the May/June 1980 issue. The only C&S specific kit that comes to mind is produced in ¼ inch by **Model Masterpieces.**

Florence & Cripple Creek/Victor Gold Mining Co.

Surprisingly, *one* mining company in remote Victor, Colorado, has been memorialized by quite a few plans and kits, no doubt due to the VCM Company's colorful livery of yellow and black with a gold herald. Plans for a Victor Gold Mining "Gold Belt" gondola are available from Maxwell, (F-4); in **SLIM GAUGE NEWS,** Vol. 2 #1 (Spring 1972); and in the June 1961 issue of **RAILROAD MODEL CRAFTSMAN.** Kits in HOn3 are produced by **LaBelle Woodworking Co.,** and in ¼ inch by **Main Line,** with prepainted sides. F&CC gon plans are available from Maxwell (F-G) and in the same issue **SLIM GAUGE NEWS** listed above. Maxwell also has photos of F&CC gon #350 available.

A much used drop-bottom gondola being used to transport pipe. The car was being switched at Durango in 1961. *Photo by Bob Brown.*

Southern Pacific

Plans for a low-side gon were printed in the June 1961 **RAILROAD MODEL CRAFTSMAN.** An article on building a side-opening gon appeared in the March 1960 **RMC**, with plans for the same car in September 1960. David Braun offered a ¼ inch plan for an SP 28-foot open-ended gon (SP-5), and Tom Peterson produced one of SP #327. I do not know a source of these plans. Perhaps **Coronado Scale Models** could help. **"Slim Princess"** once offered an SP gon kit in Hon3. Recently **Nevada-California Car Shops** offered an On3 SP low side gon kit. I am aware of no other kits.

Miscellaneous

The July 1952 **MR** carried an article by Joe Wilhelm on building a free-lance gondola, that looks suspiciously like a Rio Grande prototype. Plans for a Denver Boulder and Western gon/flat car (originally by Colorado and Northwestern) can be found in the **SLIM GAUGE NEWS,** Vol. 3 #1 (Spring, 1973).

Whew – quite a list, and not even complete! I was unable to check other magazines such as **S GAUGIAN** or **O SCALE NEWS.** If you run across any more information, share it with us. Most of the manufacturers or sources listed – which are still available advertise in the **GAZETTE**; you can obtain Maxwell plans and photos from John at 3220 Balsam, Wheat Ridge, Colorado 80033; or from the Colorado Railroad Museum, Box 10, Golden CO 80401. *Always* include a SSAE when mailing inquiries if you want an answer.

Charles E. Bradshaw, Jr., consummated the sale of the Silverton line last May, and the "new" Durango-Silverton railroad is a reality. Best of luck, and good riddance to the K-28's "diamond" stacks. K-36 and K-37 operation is promised.

Good news for Binkley and Red Ball fans. According to the Cleveland Narrow Gauge Society newsletter, owner Frank Trevillian will be re-releasing this extensive line, as soon as he can obtain wheelsets. By the way, I regularly receive newsletters from a number of "narrow gauge" clubs such as the Cleveland group, Mini-Bunch (also Ohio), Carson City, Nevada, Railroad Association and Slim Gauge Guild. Often, modeling tips, or prototype information is contained in these newsletters, though the main function of such a group is to promote the fun and fellowship of narrow (and other) gauge modeling. If there is a group in your area, why not join? I've even lettered one of my Poly Mold HOn30 boxcars with genuine Mini-Bunch decals. Thanks fellas. Love them newsletters.

In our "Help" Department, Glen Joeston, P.O. Box 12, Marina CA 93933, needs interior photos of the Rio Grande's "San Juan" coaches with reclining seats. Contact Glen directly.

In the "Red Face" department, in last issue's column on private cars, I noted John W. Maxwell's plans for D&RGW business cars, but forgot to mention his available plans for RGS cars Edna and Rico. Sorry about that.

Until next time . . .

Charlie

GONDOLA CARS OF THE DENVER & RIO GRANDE

Part I: The Early Years

by Robert E. Sloan

This is part one of a series in which the author classifies D&RG and D&RGW gondola cars into 20 classes built from 1871 to 1953.

Title photo: Leading the train in this classic Fred Jukes 1908 picture of the narrow gauge are double headed class (later C-17) 419 (later 304) consolidation and class 70 (later C-19) 411 (originally 410 "Treasury Mountain", renumbered 342 in 1924). Both engines are really working hard to storm up the 4 percent grade east of Chama, New Mexico toward Cumbres Pass at 10 miles per hour. The train is composed of three class 16 high side gondolas, two loaded with lumber and five type 18 drop bottom gondolas loaded with coke being pushed by yet another engine, followed by the caboose. *Photo by Fred Jukes from William R. Plunkett collection courtesy of Robert E. Sloan.*

Coal was king on the Denver & Rio Grande just as it was on most railroads. More coal was hauled on the D&RG than any other commodity and coal cars or gondolas as they were called in later years were the second most common car on the narrow gauge. Most narrow gauge fans think of the Rio Grande gondolas as falling into three groups, the old ones, the high-side gons, and the drop-bottom gondolas. But, on any road that lasted almost a century there had to be a major evolution in car size and construction. The Rio Grande was no exception. In the past ten years I have been trying to find out just what happened during the evolution of Rio Grande narrow gauge freight cars. I have found that there were about 3111 gondolas of 20 different classes or types on the the Grande. You would think it would be a simple matter to count the number of coal cars, but don't bet on it until you have tried it. It is as though when no one was looking flat cars became coal cars by adding sides and coal cars became flats anytime one was needed by the loss of sides. The 3111 gondola cars were about 30.5 percent of all the narrow gauge freight cars on the Grande over its century of history. As I did with box cars (**GAZETTE** Vol. 1, #1, out of print) and cabooses (**GAZETTE** Vol. 5, #2, out of print) I have organized the coal cars into types or classes and numbered them in the order they were built by the Rio Grande. Not even the car numbers were sacred. Numbers were re-used for very different cars and car numbers were changed at least once. All of this detective work would have been impossible were it not for the very kind help of Jackson C. Thode, dean of D&RG scholars, who has fed me old (but new to me) information, given me Xeroxes of rosters, loaned folio sheets and plans and supplied tidbits of trivia that solved bigger problems when they were put together. Others too numerous to mention have supplied one or two rosters or a number from a photo. Gregory Le Pak supplied the reports of the supervisor of motive power on the rebuilding of the high-side gons in 1922 and 1923.

Class One

The first class of D&RG coal car was the 17-foot long, four-wheeled, ten-foot wheel base construction flat series. They were built by Billmeyer and Small of York, Pennsylvania. As soon as part of the road was built in 1871 some of these cars, numbered from 1 to 90, were converted to coal cars by the addition of sides. Thirty-one of these cars, 9-13, 16-21, 24, 49, 51, 54, 58, 60, 62-66, 68, 72, 73, 77-80, 83 and 90 were still coal cars in 1879. The others were flat cars or stone cars. None of these cars ever had air brakes. All were off the roster by late 1880. The originally listed weight on the builder's photo was 4000 pounds. The capacity was listed as five tons.

Class Two

The second class of coal cars was the one-car class for car #501. This car was 12 feet long, four wheeled, had a seven foot wheelbase and was built like class one by Billmeyer and Small. It was shipped to General Palmer's baby road in 1871 where it was delivered in late July. This car was photographed both as a flat car and as a gondola with 36-inch high sides. The car survived until 1878 when it was scrapped or re-numbered as an unknown work car. It weighed 3500 pounds and was rated as having a capacity of 10500 pounds. This was 500 pounds more than the 17-foot class one cars.

Class Three

The third class of gondolas was also built by Billmeyer and Small when the four wheeled cars proved too light. This was the 1872 series of two-truck cars with four-stick underframes. Seventy-five of these cars were built with numbers from 1501 to 1575. They weighed 7250 pounds which was 1000 pounds less than the flat cars of the same class. Brake shoes were originally only on the B truck and the capacity was originally listed as 19000 pounds, but this was reduced to 16000 pounds (8 tons) by 1883. These cars originally cost $385.00. They were 23 feet 7 inches long and 6 feet wide. Twenty-nine of these cars were gondolas in 1879. By 1883 only 14 were still in use as gondolas. The rest were all flat cars. By October 1886 numbers 1501, 1502, 1512, 1526, 1528, 1529, 1534, and 1548 were still gondolas. The rest of this series were flats. Seven of these cars were renumbered in the general renumbering of narrow gauge freight equipment in August 1887 to 7936, 7937, 7938, 7951, 7956, 7961 and 7965. All of the surviving cars of this type were sold to the Rio Grande Southern in 1891 where they were included in numbers 302-352.

Class Four

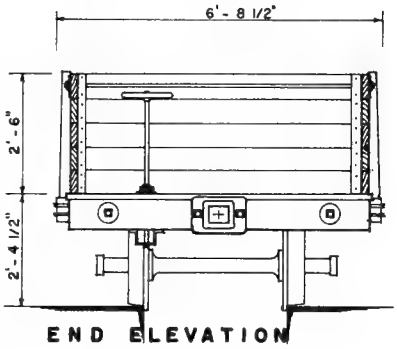
In 1873, another class, number four, of eight-ton gondolas was built by the D&RG using Billmeyer and Small iron parts. These cars differed from the class three cars by being 26 feet long with an empty weight of 8000 pounds. They were numbered 1576 to 1665. Twenty-six were gondolas in 1879, 20 were gondolas in 1883 and 1601, 1619, 1620, 1624, 1627, 1629 to 1632, 1635, 1637, 1638, 1640, 1642, 1643, 1645, 1647 to 1652, 1659 to 1662 were gondolas in October 1886. These cars were re-graded as ten ton cars and renumbered with classes five, six and seven as numbers 7500 to 7999 in August 1887. Most were sold off to the RGS in 1881.

The last eight-ton gondolas to be retained were 7936 and 7951 which disappeared during 1904 during the required conversion to automatic couplers. They were not worth converting. But similar flat cars 7318, 7407, 7435 and 7431 had been sided for coal in 1899 and also lasted to the coupler conversion.

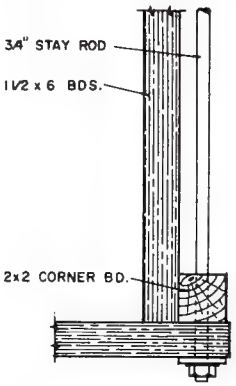
Class Five

After the recovery from the financial panic of 1873, the first new gondolas were built in 1878 as part of the projected expansion to El Paso, Texas. They were the fifth class, forty ten-ton 26-foot long cars with the new and stronger six-stick underframe which became standard for wood cars up to the end of the road. This new class weighed 9500 pounds and for the first time gondolas were numbered separately from flat cars as 1712-1761.

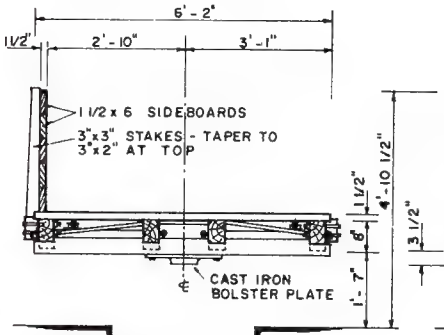
This 1872 car was built as a class three series when the four wheel cars proved too light. They were built by Billmeyer and Small of York, Pennsylvania. *Photo H. L. Broadbelt, courtesy of R. E. Sloan.*



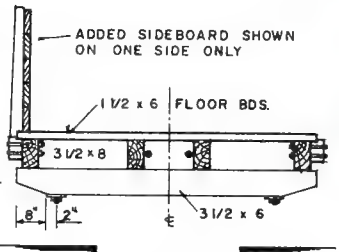
END ELEVATION



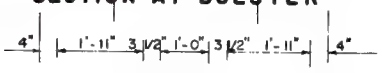
CORNER DETAIL

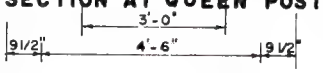


SECTION AT BOLSTER

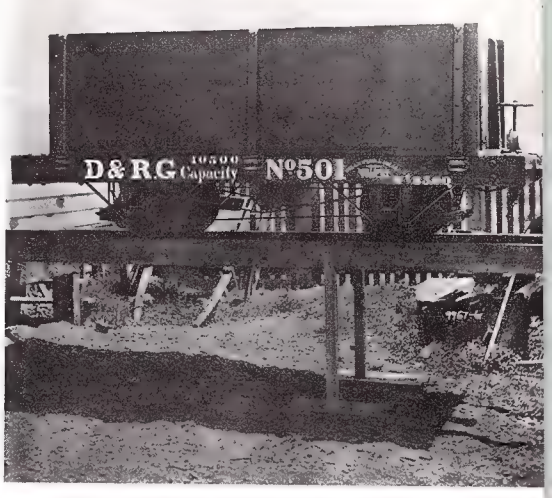


SECTION AT QUEEN POSTS

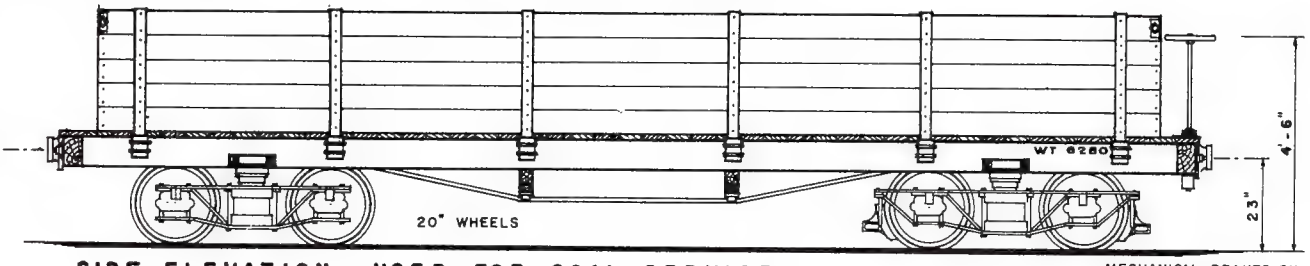




DRAWN BY: KEN PRUITT 9/10/64



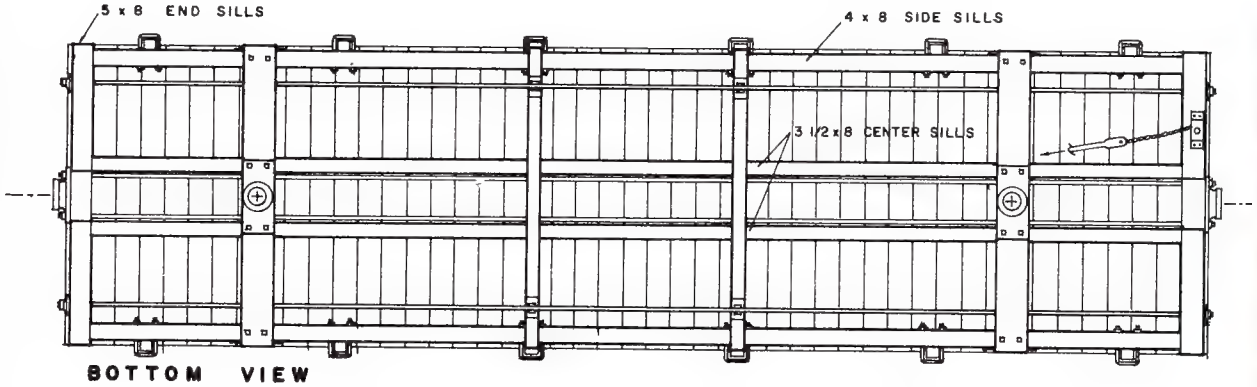
Number 501, the only car in class two. This little four wheeler was built in 1871 and was delivered in July of that year. The sides were 36 inches high. *Photo, H. L. Broadbelt collection, courtesy of R. E. Sloan.*



SIDE ELEVATION, USED FOR COAL SERVICE

MECHANICAL BRAKES ON ONE TRUCK ONLY

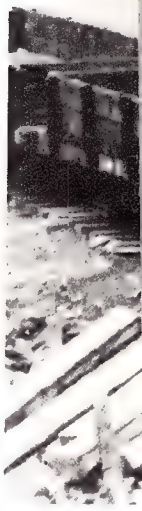
THIS PLAN SHOWS THE FIRST EIGHT-WHEEL NARROW GAUGE FREIGHT CAR CONSTRUCTED IN AMERICA. ORDERED BY PALMER'S DENVER & RIO GRANDE RAILWAY IN 1871 AND CONSTRUCTED BY THE FIRM OF BILLMEYER & SMALLS OF YORK, PA. CARS WERE DELIVERED AS SHOWN ABOVE WITH MECHANICAL BRAKES AND LINK & PIN COUPLERS. SAFETY APPLIANCES, STEPS, GRAB IRONS, AUTOMATIC BRAKES & COUPLERS, AND SIDEBOARDS WERE INSTALLED BY THE RAILWAY AT LATER DATES.

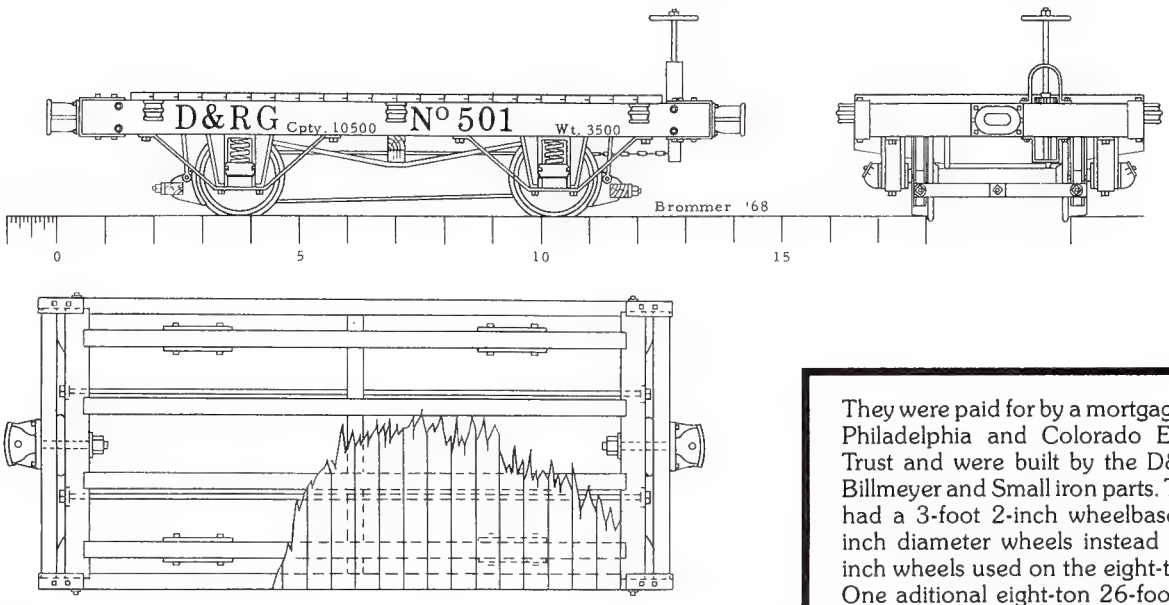


BOTTOM VIEW

DENVER & RIO GRANDE RAILWAY

SERIES 1500 FLAT CARS





This drawing shows the flat car under frame used on several of the early D&RG four-wheeled freight cars. Number 501 which was the only car in gondola class one had this kind of underframe with 36 inch high sides and ends added for coal service. Charlie Brommer drew this plan which originally appeared in the November 1968 issue of **FINELINES.**

Class 60 (later C-16) engines shoving four ten-ton 26-foot gondolas of the kind in classes 4, 5, 8, and 9 taken on the Calumet Branch between 1887 and 1903. Photo, collection of William R. Plunkett courtesy of R. E. Sloan.

An enlargement of part of the last photograph to show 10-ton 26-foot class four gondolas #7700 and 7874 in detail. *Photo, collection of William Plunkett courtesy of R. E. Sloan.*

They were paid for by a mortgage with the Philadelphia and Colorado Equipment Trust and were built by the D&RG with Billmeyer and Small iron parts. The trucks had a 3-foot 2-inch wheelbase with 24 inch diameter wheels instead of the 20 inch wheels used on the eight-ton trucks. One aditional eight-ton 26-foot long car was built under the P&CE Trust. It was similar to class five but it had eight-ton trucks, weighed 9500 pounds and was numbered 1766. The other cars of this batch were flat cars.

Class Six and Seven

Classes six and seven were similar to classes four and five but were increasingly heavier. Class six was composed of 150 ten-ton cars, each 26 feet long and weighing 10,000 pounds. They were built in 1880 under the P&CE Trust. They were numbered from 1813 to 1962. Five were flat cars by 1883. Class seven had 201 similar cars numbered from 1100 to 1300 but they weighed in at 10,500 pounds. I presume heavier wood was used. They were built late in 1880 under the Colorado Rolling Stock Trust A which was the next of General Palmer's mortgages. Like the class six cars they were built by the D&RG using B&S iron parts. The trucks were 3 foot 7 inch wheelbase of a new type. The springs were rubber as in the earlier trucks. The wheels were 24 inches in diameter. In the 1887 renumbering all of the eight and ten-ton gondolas, classes three to seven were renumbered into the 7500 to 7999 series. Four hundred and eighty were renumbered in 1887; by 1903 251 were still on hand including some similar flat cars retaining flat car numbers 6503-7450. These had been re-sided to be coal cars. Four gondolas in the series 7500-7931 and three converted flats of the same type 6808, 6850 and 6856 were still left in May 1905 but they were all off the roster by the next year. The reason for the drastic drop in numbers is of course the ICC required conversion from link and pin couplers to automatic couplers. These old cars were simply not worth converting.

This seems like a good place to split Bob Sloan's series on the gondolas cars of the D&RG. In the next issue he will continue to describe the rest of these interesting cars. Bob Brown.

LGB, A Serious Look

by Marc S. Horovitz
Photos by the author
unless otherwise noted

This is the first of several articles on LGB model building. In this article Marc Horovitz who operates the Side Street Banner Works discusses LGB in general and the work of several modelers in more detail. In the next issue I will describe some of the components used in serious LGB model building in more detail and discuss several scratch-built G gauge models using LGB parts I have just completed. For those of you who want to find out more about LGB there is an LGB Model Railroad Club which holds annual conventions and prints a very fine little magazine. Their publication is called **BIG TRAIN OPERATOR.** *Write to LGB Model Railroad Club, 125 August Drive, Coraopolis, PA 15180 for further information.* Bob Brown.

The name LGB (Lehmann Grossbahn) has become widely known in recent years. The Lehmann Company has single-handedly been responsible for the invention and promotion of a new scale in modern model railroading, now known as G scale. G scale is 22.5 to one ratio, or slightly larger than one-half inch. All LGB equipment is patterned after narrow gauge railroads of the world and runs on gauge 1 track (1¾ inches between the rails). Gauge 1 track is 42-inch gauge in one-half inch scale.

There are many reasons the serious modeler should consider G scale as a modeling alternative. Perhaps the most important is the size of the equipment. The larger the model, the more closely prototype operation may be approximated. The sheer bulk of G scale equipment makes it, in my opinion, one of the most believable scales. It is very easy to imagine one's self riding in the cab or caboose of such a large train. The cars rock in a prototypical manner, and they coast easily when pushed. LGB locomotives are superbly engineered, are almost silent, and perform excellently at very low speeds.

LGB equipment is made almost entirely of extremely high grade plastic, and is designed for use indoors or out. Since it truly can be used outdoors without fear of damage to the equipment, this opens up the possibility of permanently laid garden railroads in the English tradition. This aspect of the hobby has been sadly neglected in the United States.

Indoors a G scale railroad can be built

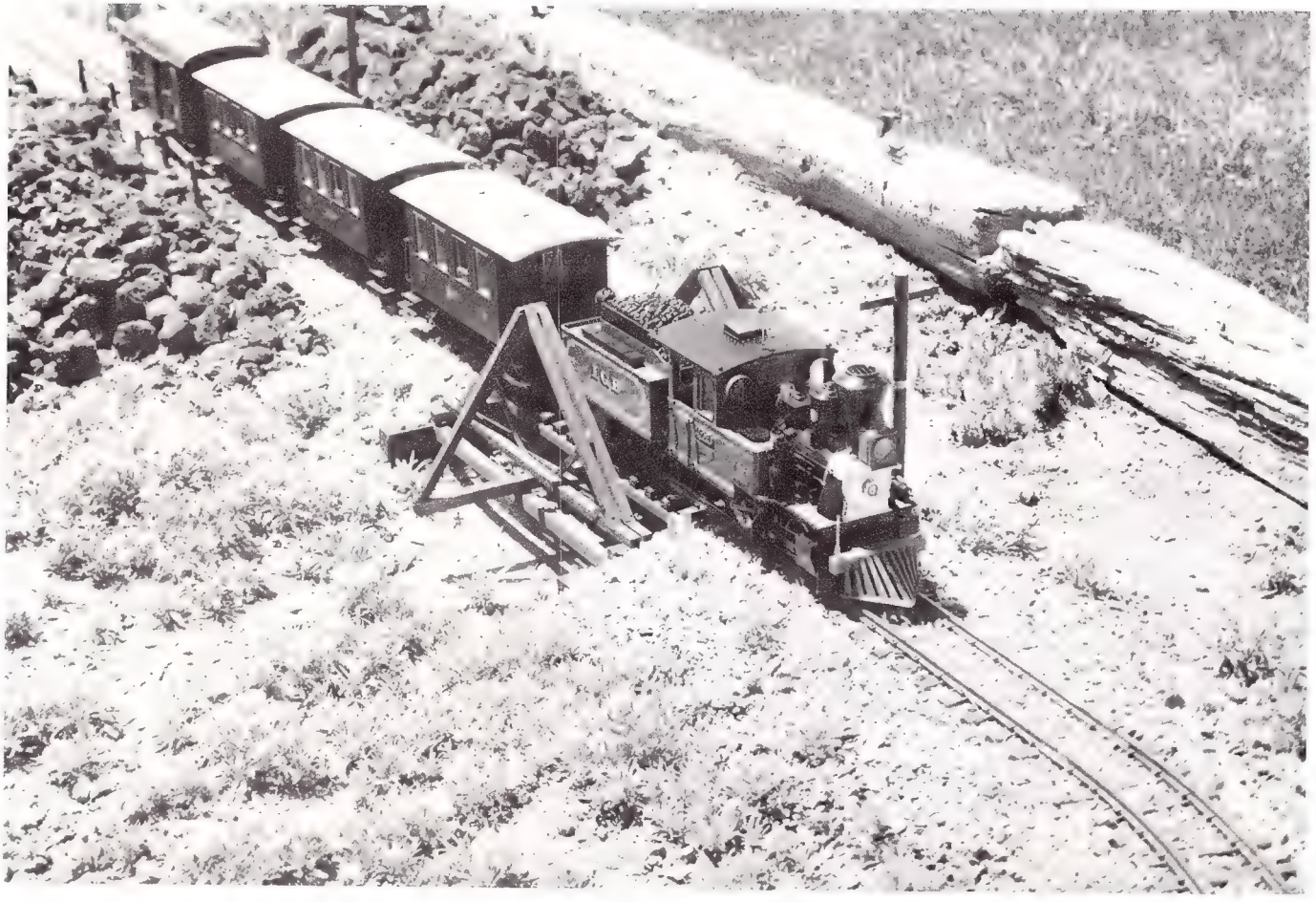


Photo opposite below: Crossing the bridge on John Newell's Colorado Eastern.

Right: John Newell's Colorado Eastern in mid-summer. All vegetation is alive.

Below: The Kimberly Mine on L. A. Kincaid's Lawn Garden & Backyard Railroad. The ore car was scratch-built by Kincaid, as was the mine.

in less space than might be supposed. LGB equipment is able to negotiate sharp curves and the scale is well suited to "around-the-wall" type layouts. A short line terminal would make an impressive shelf layout. When working in a scale this large, it isn't necessary to own an entire fleet of locomotives. Many prototype lines had only two or three locomotives and a handful of rolling stock. A few well-built G scale models can give as much satisfaction as a vast railroad empire in a smaller scale.

All LGB equipment is highly detailed; however, most of the detail is molded in. Several different plastics are used in LGB trains. Small parts that protrude, like hand rails and grab irons, are made of a soft nylon so that if they are accidentally knocked against something they spring

back. LGB flanges are deep (too deep for scale appearance) and the LGB track is a bit oversize. However, many people consider this otherwise undesirable combination a fair trade-off for the almost unbelievably high performance of the trains. Derailments, the bane of the smaller scales, are almost unheard of in G scale.

To date all G scale trains run on 16 volt DC current, so they are compatible with many of the sound systems and carrier controls of the smaller scales.

All is not rosy, though. There are some definite drawbacks with LGB equipment, but nothing unsurmountable. Since most of the equipment is made from unpainted molded plastic, the colors are a bit vivid for the American palate. A coat of paint and some judicious weathering (actual or synthetic) generally takes care of this problem. Another drawback, in this country anyway, is that almost all of the trains produced by Lehmann are of European prototypes. LGB does, however, make a line of very acceptable U.S. freight cars, all riding on arch bar trucks, with the exception of the caboose which is a 4 wheel bobber. As far as motive power is concerned, that is pretty much up to the kit-basher and scratchbuilder; more on that later. LGB makes a cobbled-up locomotive that they bill as being American, but it is actually their German tender locomotive decked out in a diamond stack, U.S. headlight, and a cowcatcher.

One of the biggest problems with LGB equipment is their 'polarized' couplers. These are non-scale but very reliable hook-and-loop type couplers. The problem is that even though there is a loop on either end of the car, there is a hook on only one end. This automatically dictates the direction the car must travel, and it plays havoc with complex layouts involving reverse loops, wyes, and turntables.

The flanges on LGB trains, as mentioned earlier, are quite deep. Many people have turned them down with good results, but it is a tedious job to modify all of one's rolling stock.

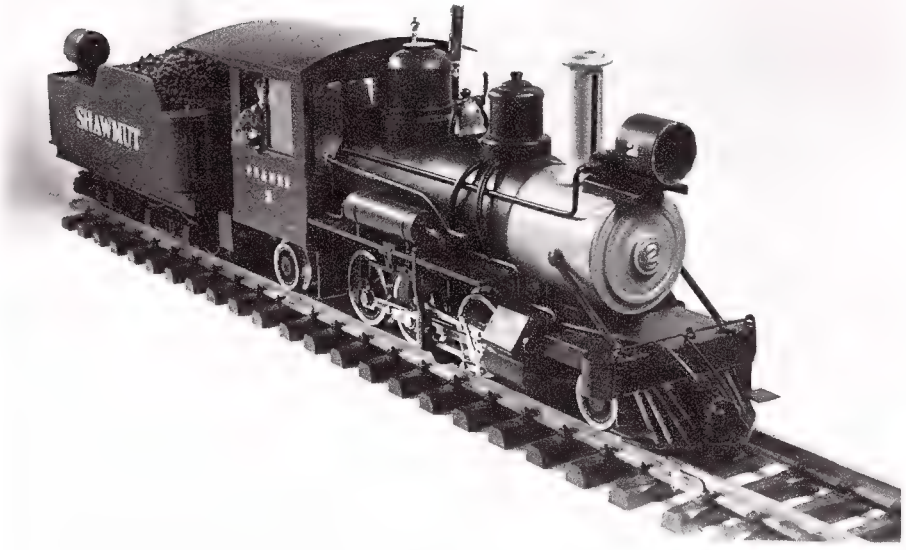
The plastic used in LGB rolling stock and locomotives is almost impossible to adhere to with cement, so modifications must generally use mechanical connectors such as screws.

I am now going to describe the work of three LGB modelers, and how they have solved some of the problems above.

John Newell, of Aurora, Colorado, has a permanent outdoor layout in his yard. The layout has been in place for over three years and still operates flawlessly. The brass LGB rail has oxidized to a very nice dark brown. The weight and pick-up system of the locomotives makes electrical contact problems just about non-existent, even after long periods of disuse.

John models a little known Colorado railroad, the Colorado Eastern. This, unlike most Colorado narrow gauge routes, was a plains railroad. It was a low budget operation and much of the equipment was bought second-hand. Most of the rolling stock was four-wheeled. John has removed the end platforms from the European box cars and shortened their frames, thus making the LGB cars resemble old CE rolling stock.

Many of the buildings on Newell's Colorado Eastern were scratchbuilt. He currently has plans for a station that, when complete, will be over five actual feet in length. G scale is the scratchbuilder's dream; it is large enough so that the



William A. Bauer's beautiful 2-6-2, riding on an LGB chassis. *Photo by Tom Valentine.*

A kit-bashed G scale snow plow by William Bauer. *Photo by Tom Valentine.*

L. A. Kincaid's Lawn Garden & Backyard Rail Road. A live-steam locomotive by Aster, a switchstand by Sidestreet Bannerworks, rail by Hughes (no longer available), and a stock car scratch-built by Kincaid, riding on arch bar trucks by LGB.

finished model doesn't have to resemble a piece of fine jewelry. Many of the techniques and materials of full size construction can be used easily in G scale. The buildings can be painted with exterior enamel and they will weather in the same manner as prototype buildings.

Running an outdoor railroad is a totally different experience than running an indoor pike. The biggest difference, of course, is the full scale weather. One must be prepared for floods and washouts, ice on the track, and landslides, not to mention getting snowed in. When winter comes, the Colorado Eastern is plowed by a wedge plow pushed in front of the locomotive. If double-heading is necessary, it is no problem because most LGB locomotives have the same diameter drivers and the same gear ratio. (In fact, the gear ratio and the estimated hauling capacity, in axles, of each locomotive is listed in the LGB catalog.) If the snow is too deep, the line is temporarily shut down, as in full size practice.

L. A. Kincaid, of Arvada, Colorado, is another outdoor G scaler. His Lawn, Garden, and Backyard RR employs hand laid track utiizing rail made by Hughes Model Engineering of Seattle (unfortunately no longer in business). This rail is aluminum, of standard T section, and is a bit smaller than LGB rail. The rail also has a tang or projection extruded into the underside, and running the length of the rail. This tang slides into pre-gauged slots in wooden ties and is held in place by the traditional spike method. Al makes his own ties to a cross sectional proportion of about 3:1, instead of square. They are slotted for the rail on the small side which makes the ties very deep. The track is fabricated on the bench and is then laid in the garden in the same manner as sectional track. The track is ballasted with most of the ties buried in the ballast. Since the ties are so deep, the track is very stable once the ballast is in place, and it looks just fine.

An obvious advantage to using hand-built track, aside from it being closer to scale, is that one is no longer strapped to the limited and very sharp curvature of LGB track. The track may be laid where the terrain dictates, as in full size practice, instead of chopping up the garden to fit the track. It is also a good bit cheaper.

Al also scratchbuilt some of his rolling stock, as well as all of his structures. The structures are brought indoors when not in use to protect them from the out-of-scale children, unlike John Newell's buildings which are a permanent part of the landscape. The scratchbuilt rolling stock is all designed to fit on LGB arch bar trucks, so there is no compatibility problem with scratchbuilt and LGB stock equipment.

William Bauer, of St. Marys, Pennsylvania, either scratchbuilds or kit-bashes most of the stock for his railroad. Bill has solved the coupler polarity problem by removing the LGB couplers entirely and installing dummy knuckles on the trucks. He has made a wedge snow plow lettered for a former local line, the Pittsburg, Shawmut & Northern Railroad. The plow started life as an LGB 4-wheel goods wagon and was extensively modified, primarily using styrene sheet, into a very American plow.

Bill's most ambitious, and certainly most impressive, project is the conversion of an Austrian 0-6-2T locomotive into a beautiful American 2-6-2 tender locomotive. Inspiration for the project came from an article in a back issue of **MODEL RAILROADER** by Charles Small. The European superstructure was removed entirely, and a new boiler was fabricated out of copper pipe and fitted to the chassis. The stack and domes were turned from steel, and the cab is made from sheet brass. The tender is made from a block of birch wood, cut precisely to size at a local mill, and finish-shaped on a band saw. The tender body was completed by some skillful woodworking and was mounted on a styrene frame, which was in turn mounted on a pair of the ubiquitous LGB arch bar trucks. No attempt was made to superdetail the engine. The photo of this engine certainly indicates the scratch-building potential in G scale. The engine has all of the outstanding performance qualities of LGB locomotives and has no trouble hauling 10 of the large LGB American freight cars.

Another neglected aspect of the larger scales of model railroading is the potential use of live steam, especially on outdoor pikes, although it is perfectly safe indoors as well. Undoubtedly the country with modelers most involved in small scale live steam today is England. In recent years most of the problems associated with live steam have been successfully overcome, as a result of English research and ingenuity. No longer must one run his live steamer on a straight track, on a warm, still day, with his fingers crossed. These days, a model steam locomotive is a reliable machine that can be fully controlled (through radio or other means) and can be run in any weather, including a sub-freezing snow storm.

It is also true, however, that running a real steam railroad is an entirely different ball game than running an electrically operated pike. The operation of even the most sophisticated steam locomotive is still a 'hands on' affair. The engine must be watered and fueled, the fire must be lit and maintained. To many, the experience of running a real steam railroad is much more satisfying than running electric trains. Some of today's steam locomotives have insulated wheels and can be run on the same track with electric locomotives with great success. Operating a steam locomotive of any size requires patience and practice to get the best performance from the engine.

In G scale there are several steam locomotives available today. Unfortunately, they are not mass produced (with one or two exceptions) and obtaining one usually entails a wait of several months. Germany, England, and Japan are the principal producers of G scale steam locomotives. The Aster company of Japan, probably the most prolific modern day producer of small scale live steam locomotives, has recently introduced a delightful 0-4-2T Baldwin locomotive that can be easily converted to LGB use. With any luck, there may someday be an American producer of G scale live steamers from American prototypes.

I hope that this brief article has inspired some of you to give serious thought to G scale modeling. It is a tremendously satisfying scale with almost unlimited potential.

C&NW NARROW GAUGE IN THE BLACK HILLS

Part 3–Epilog

by Scott Zieske

Title photo: This train is posed on the trestle at Horse Shoe Bend in Nevada Gulch, South Dakota. The wooden ore cars, which may be similar to the Quincy and Torch Lake rock cars, show clearly in this picture. *Photo, Wyoming State Archives, Museums and Historical Department.*

This is the fourth article by this author on the narrow gauge railroads that ran in the Lead, South Dakota area. It is the third article in his C&NW series. Part one (Jan/Feb 1980 **GAZETTE***) discussed the Fremont, Elkhorn & Missouri Valley line which later came under the control of the Chicago and Northwestern Railroad. In Part 2 (Mar/Apr 1980* **GAZETTE***) the author described the rolling stock and locomotives of the FE&MV-C&NW lines. In the May/June 1981* **GAZETTE** *the author discussed the three-foot gauge trolley line which ran in Deadwood, South Dakota. In this issue the author adds information and corrections received from* **GAZETTE** *readers concerning the narrow gauge railroads in and around Lead, South Dakota.* Bob Brown.

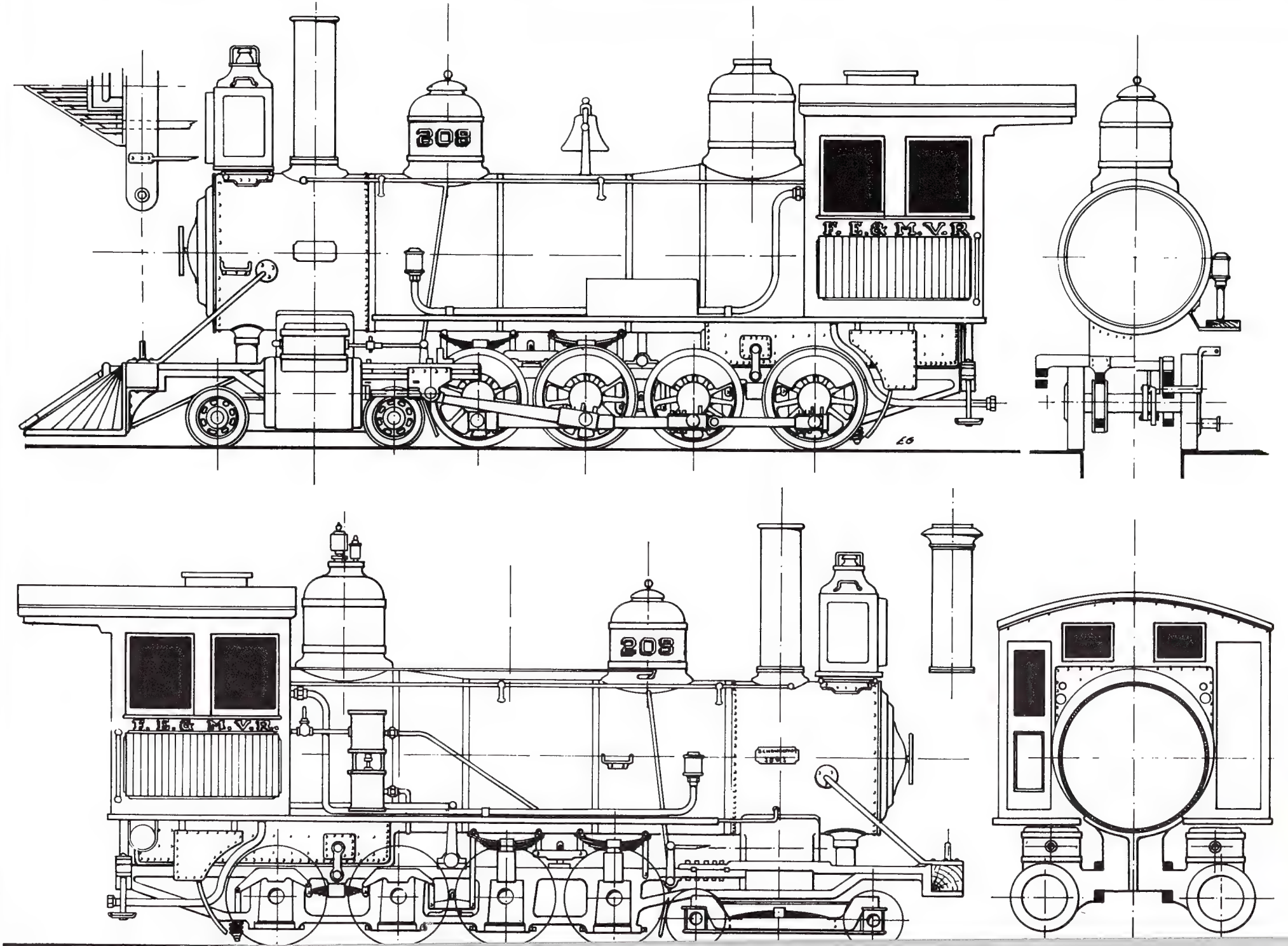
When I started to accumulate information on the narrow gauge railroads of the Black Hills, I hoped to get more people interested in the unique aspects of these tiny roads. Through a series of events, not all by chance, I moved to Lead, South Dakota, about four years ago. This move put me in a town which is not only the home of the largest gold mine in the western hemisphere but was also once home to three narrow gauge railroads. It was a good place to make contacts and find sources. I started to accumulate photographs and historical accounts of the Fremont, Elkhorn, & Missouri Valley Railroad (FE & MV) which later became the Chicago & Northwestern (C & NW) narrow gauge. I also began to collect data on the Burlington controlled narrow gauge lines. When I realized that nothing had been published in nearly eight years on the Black Hills railroads, I decided that it was time to share what I had collected with **GAZETTE** readers, so I submitted parts one and two of this series to Editor Brown.

Well sure enough, I got more people interested in the Black Hills narrow gauge and also discovered that there were a lot more people out there already interested than I had thought. Shortly after Part 1 of this series was published, I began to hear from interested people from all over the country who supplied fascinating information. Some supplied bits and pieces but some supplied much more than that. Each letter helped me to better document the history of the FE & MV – or cleared up misconceptions – or filled in blank spots. This is one of the best things about being involved in railroading. You make new friends and get involved in a free exchange of information and ideas. Since there are precious few sources of information on railroads as obscure as the "Elkhorn", I'd like to share with you some of the most interesting comments I received.

First, some corrections. On page 28 of the January/February 1980 **GAZETTE** the photo captions are misleading. The caption under the top photo of the Montezuma and Whizzers mine sidings should state that Blacktail and Central City are hidden in the distance, not Deadwood. Also the bottom photo has been misidentified for years. In actuality the shot was taken of a trestle in Stewart Gulch, not Nevada Gulch. There were several nearly identical trestles on similar curves in the area, but the one pictured was located in Stewart Gulch. Early-day maps confirm this. My thanks to **GAZETTE** reader Deverl Johnson for corroborating geographical information.

In the September, 1974 **FINELINES** James Nickoll wrote an article on the narrow gauge C&NW Fennimore-Woodman Branch Line in Wisconsin. Recently Jim wrote me to say, "C&NW 4-8-0 #933 (FE & MV #212) was transferred to Fennimore from the Black Hills in 1910 and then returned in 1912. The engine, called the "big brute" by a few of the locals, was just too heavy for regular operation and had trouble on the horseshoe curve just outside of Fennimore. Its use was pretty much restricted to winter-time operations when the roadbed was hard. It hauled trains of ice blocks cut from the Wisconsin River at Woodman up to Fennimore. Presumably #933 was the reason that the turntable at Woodman was enlarged to 50

The Imperial Cyanide and Golden Reward Mills show in this photograph of the C&NW roundhouse in lower Deadwood, South Dakota. Notice how the roundhouse is nestled into the embankment. *Photo, Wyoming State Archives, Museums and Historical Department.*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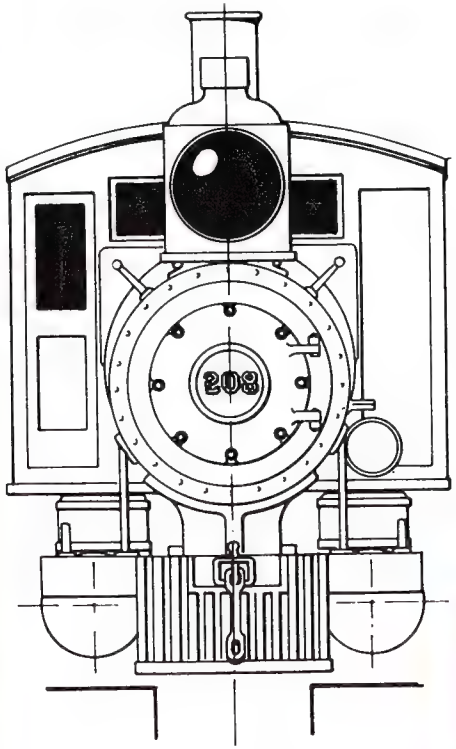
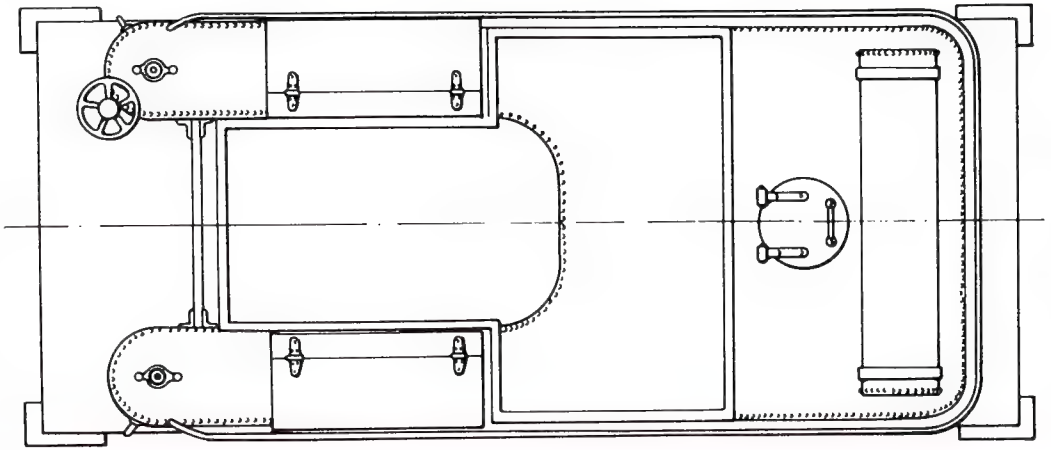
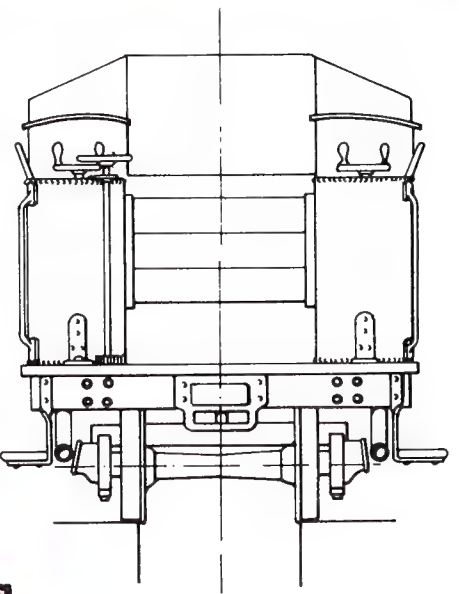
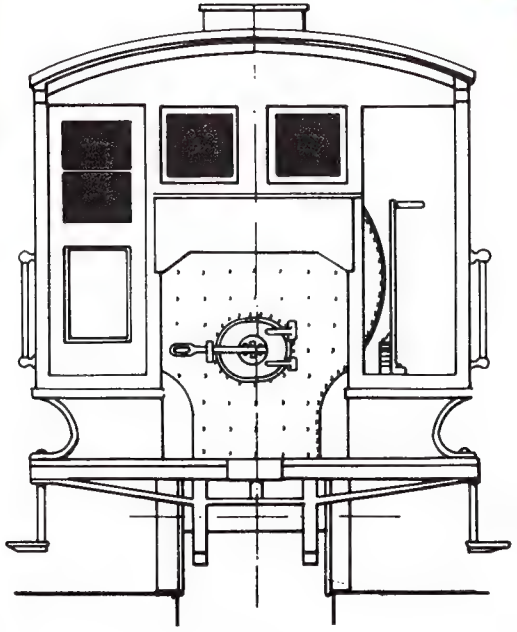


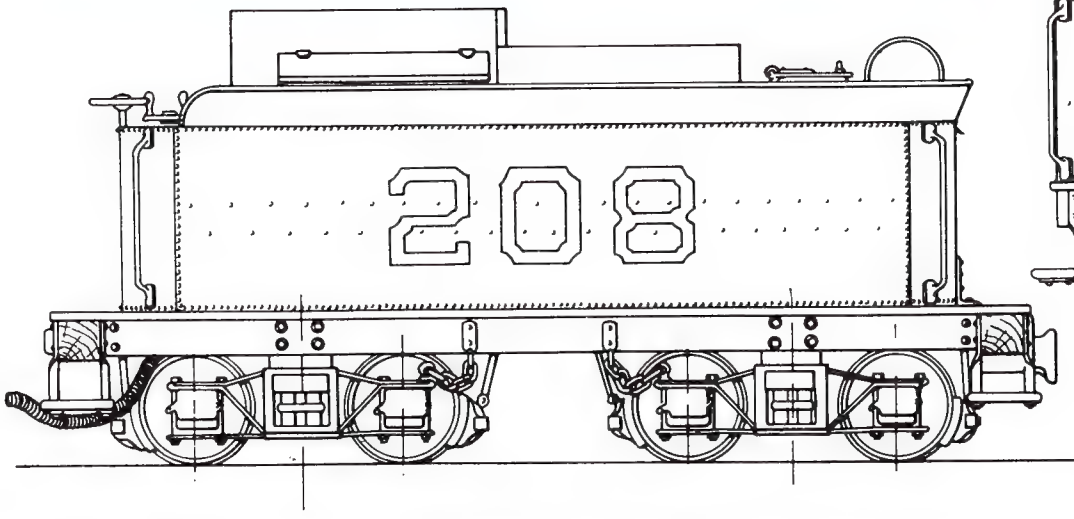


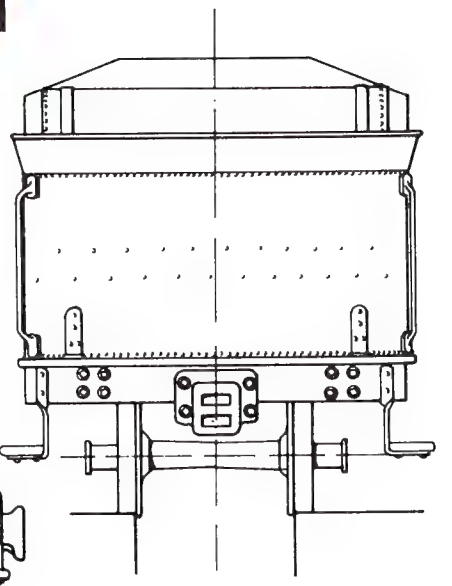


Fremont, Elkhorn & Missouri Valley Railroad #208

Drawn by Ed Gebhardt
Scale: ¼ inch = 1 foot







Fremont, Elkhorn & Missouri Valley Passenger Car Dimensional Data & Modifications

	Day Coach #2	Combine #828
Date Built	May, 1891	February, 1887
Builder	Pullman	C&NW
Length Overall	8'3¾"	8'5"
Height Overall	11'9"	12'6"
No. of Wheels per truck	4	4
Truck Wheelbase	5'0"	5'0"
Kind of Wheels	Cast	Cast
Size of Wheels	26"	26"
Size of Journals	3¼" × 6"	3¼" × 6"
Number of Windows	24	18
Size of Glass	22" × 24" and 9" × 22"	18" × 26"
Style of Interior Finish	Cherry and Ash	Ash and Paint
Washstands	1 Saloon	n.a.
Kind of Heater	Baster Heater (removed 1/14/20. Two stoves installed)	1 Stove
Illumination	Oil Lamps (4)	Oil Lamps (1 center, 1 side)
Length Over Sills	30'	39' 8¼"
Width Over Sills	7' 11½"	8' 0"
Height (Top of sills to bottom of plate)	6' 1"	5' 10½"
Total Wheelbase of Car	26'	33' 4¼"
Brakebeams	Wooden	Wooden
Cylinder	6"	10"
Number of Deck Sash	22	28
Size of Glass	5" × 23"	5" × 24"
Seating Capacity	40 (modified 1/14/20 to 38)	22
Weight	26,400 lbs.	28,000 lbs.
Leverage	13½"	10½" × 12"
Brake System	Stephens	Freight System
Special Appliances	Harmonious Brakes Compartment Water Coolers (1/14/20) Doorpost Hand Holds (5/29/24)	Retaining valve, Harmonious Brakes Compartment Water Coolers (1/14/20) Doorpost Hand Holds (5/29/24) Side Door Chains (5/19/24)
Other Car Numbers	FE & MV #2729, C&NW #56	n.a.
Disposition	Sold to Private Party Used as Office Building in Fennimore, WI	Destroyed, Fennimore, WI 7/30/26

(All data courtesy of James Nickoll)

feet in 1910. The failure of the experiment with the #933 is probably why the second #279 2-6-0 was placed on order (for the Wisconsin line)."

Jim adds that FE & MV day coach #2 (later #2729) was used on the Fennimore-Woodman line until June of 1926. At that time the coach then carrying #56, was sold to a Fennimore veterinarian and, according to a local paper, converted into "a most comfortable and cozy office". Also, combine #828 (also ex-FE & MV) was in use until mid-1926. Dimensional data and modifications made on these two cars are included in the accompanying table.

Mike Collins of Sacramento sent me a copy of an interesting article which appeared in the June, 1891 issue of **THE RAILROAD AND ENGINEERING JOURNAL.** Included is a description of FE & MV #208. The article states in part, " . . . (the engine) will be employed in heavy work on a mountain grade. This is, we believe, the first engine of the twelve-wheel pattern ever constructed for a narrow gauge road. The twelve-wheel pattern is growing steadily in favor, and the builders state that they have a number of engines of that type at work on mountain roads and heavy grades which are reported as giving better service than the ordinary consolidation (2-8-0) pattern."

It is curious that even though the FE & MV 4-8-0's were just about statistically identical to the famous D&RGW C-19 2-8-0's, they were claimed to be better performers. However, if routine operation on 8 percent plus grades was any criteria, maybe the 4-8-0 wheel arrangement did provide better adhesion. For you detail hounds, I have compiled a table of additional dimensional data from the 1891 article on these 4-8-0's.

In Part 1 of this series (**GAZETTE** January/February 1980) I pointed out the apparent similarity between the FE & MV outside-braced ore cars and the rock cars of the Quincy & Torch Lake RR. I received a letter from Leon Schaddelee of Michigan who is researching the narrow gauge Mineral Range and Hancock & Calumet railroads of Northern Michigan. (Articles soon to appear in the **GAZETTE** – *Ed.*) Leon notes that after conversion to standard gauge, the H&C sold rock cars to the Q&TL and also to the East Broad Top. According to Leon's research, in April of 1902 one C.A. Schroyer inspected the equipment for the C&NW because, "Mr. Schroyer's company has a narrow gauge line out in the Black Hills, Dakota, which has use for cars that dump from the bottom, and it is quite possible that some of the best of the narrow gauge equipment will be purchased, as the company is badly in need of additional equipment at this time."

So far Leon and I have not been able to determine for sure whether or not the FE & MV got those Michigan cars, but it's interesting to speculate on the changes of ownership most narrow gauge equipment has seen. Besides, those FE & MV ore cars also look a lot like those used by the South Pacific Coast RR.

Other **GAZETTE** readers have provided various research tips and tidbits of information all of which have helped. A special thanks to Ed Gebhardt who provided the excellent scale drawings of 4-8-0 #208. Ed has done other drawings for the model railroading press and I feel fortunate to have his fine work included in this series.

If you have an interesting narrow gauge or short line prototype which runs or used to run near where you live, by all means consider sharing it with the **GAZETTE** readership. You will not only help to make the **GAZETTE** even better, but you will probably meet many new friends who share your interests. There is no need to wait until you "know it all" either. If everyone waited, *nothing* would make it into print. After all, what's more important than sharing a subject you know something about with your fellow hobbyists?

A C&NW ore train, near Deadwood, South Dakota. *Photo, Wyoming State Archives, Museums and Historical Department.*

Additional Dimensional Data on Schenectady-built Fremont, Elkhorn & Missouri Valley 3 foot Gauge 4-8-0's (as built in 1891)

Driver Diameter	37"
Pony Truck Wheel Dia.	22"
Driving Axle Journals	6" × 7"
Pony Truck Axle Journals	4" × 6"
Rigid Wheel Base	6' 11"
Boiler Barrel Diameter	52"
Boiler Material	7/16" steel
Fire Box Depth	43 ⅛" Front 40⅛" Rear
Inside Stack Diameter	14"
Valve System	Richardson balanced slide valve
Exhaust Nozzles	Double 2¾"
Tender Weight Empty	22,800 lbs.
Coal Box Capacity	3½ tons
Tender Truck Journals	3½" × 6"
Tender Frame	Angle Iron
Truck Frames	Channel Iron
Bolsters	Wood
Side Bearings (Tender)	Back Truck only
Total Wheel Base (Engine and Tender)	39' 9¼"
Total Length (Engine and Tender)	47' 8"

Note: Some of these dimensions differ from the C&NW Class G folio drawing because of rebuilding and conversion to oil burning in 1912.

Source: **THE RAILROAD AND ENGINEERING JOURNAL** – Vol. LXV, No. 6, June 1891. Courtesy of Mike Collins.

Sometime after arrival in the Black Hills, all engines used in both passenger and freight service had engine-type headlights and pilots added to the rear of their tenders to facilitate running tender first from Lead to Deadwood in most cases.

References

Key

1 – Deadwood Central, Black Hills & Ft. Pierre or CB&Q narrow gauge
2 – CB&Q, standard gauge
3 – C&NW, FE&MV narrow gauge
4 – Narrow gauge mining or logging
5 – Transferred locomotives or rolling stock
6 – Combination of the above

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NMRA BULLETIN, July, 1972. pages 1, 25, 36, 56. (6)

RAILROAD & ENGINEERING JOURNAL, June 1891. Pages 246-247. (3)

TRAINS, August 1970. (1, 2)

Other

MAP OF THE ORE DISTRICT OF THE NORTHERN BLACK HILLS, Lawrence County, SD, 1904, Frank S. Peck, U.S. Dept. Mineral Survey.

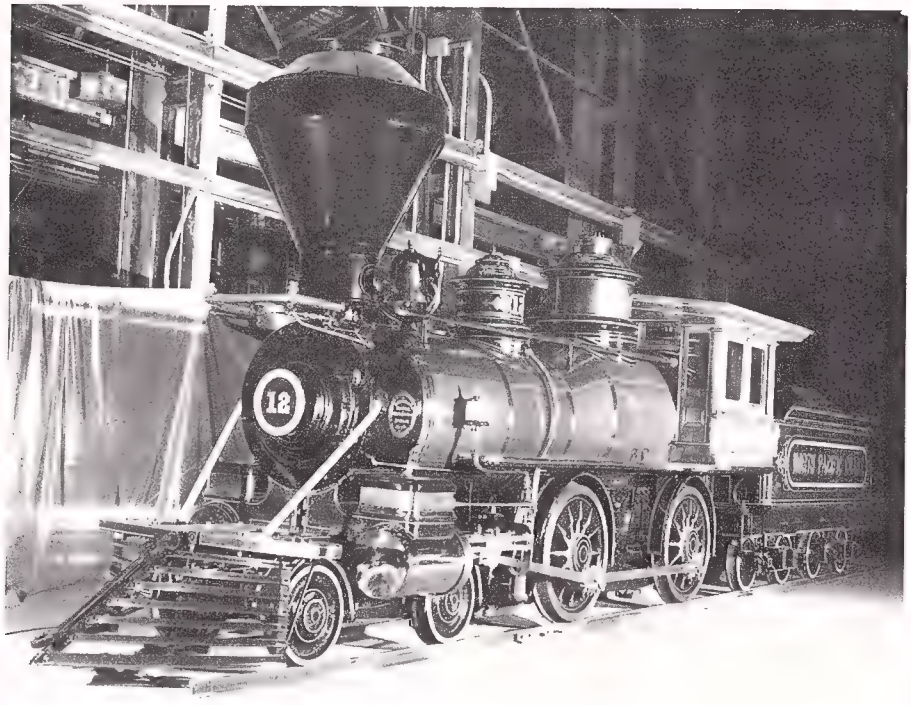
California State Railroad Museum

by Bob Brown

The California State Railroad Museum is open at last. We have all been following the developments and set-backs of this marvelous project for several years. The museum opened last May 2nd with a giant railroad fair called Railfair 1981. I am sure that you have all read about the opening by now but I wanted to alert you to the real wealth of modelbuilding information and inspiration available in this beautiful museum. The California State Railroad Museum is without doubt the finest railroad museum in North America and possibly in the world. I am really impressed by the professional quality of the restorations. The cars and locomotives were scraped down to obtain the correct color schemes. In some cases ultraviolet light was used to get the colors right ('m not sure how but that's what the brochure says.) The cars were rebuilt when necessary and in some cases, foam was used to fill in weak spots. The cars and locomotives were also finished very carefully.

A visitor coming to the museum enters through a foyer where slides depict the railroad in American life. You are then ushered into a small theater with a large screen. The museum has a special film showing the railroad in the life of the American people. The film was made on the Sierra Railway and at the Rio Vista Junction Trolley Museum. When the film ends the screen goes up and you see the Governor Stanford through the glass wall behind the screen. Two doors open and you go into the museum proper. The Governor Stanford is mounted on a right-of-way and seems to be entering a snow shed. The walls of the room resemble the granite of the Sierra Nevada Mountains. From there you go into the other exhibits which include for the narrow gauger a 'Carter Brother's' passenger car from the Monterey and Salinas Valley, Nevada Central coach #3, and the North Pacific Coast's three-foot gauge Sonoma. Overhead you can see Nevada Central Mogul #1 pulling a narrow gauge train consisting of SP narrow gauge boxcar #331, ex-South Pacific Coast/SP tank car #145 and Pacific Coast caboose #2.

These exhibits are housed in a large building specially made for the collection. The end of the building is a large roundhouse complete with a steel working turntable. The exhibits are all beautifully arranged. The Empire sits on mirrors, has a mirror ceiling and is surrounded by mirrors. The Genoa sits on an old iron bridge and the Nevada Central 2-6-0 and its three-foot gauge train sits within a through wooden truss bridge.



The SONOMA restored to her original condition. This photograph shows clearly the beautiful restoration work done by the museum staff. All the displays have been as beautifully restored as this one. *Photo by the California State Railroad Museum.*

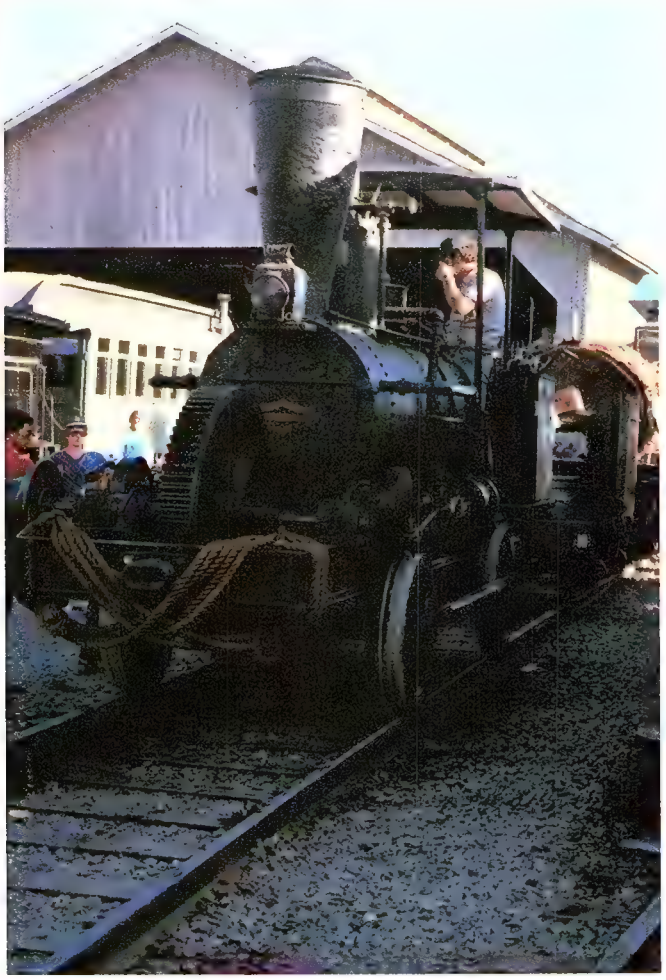
If you come to the NMRA Convention this August the museum is only about two hours away by car. I am proud that this museum was developed by my state and I urge you to visit it and consider this beautiful museum as a source of inspiration and information.

The Roster

THE EMPIRE – Virginia and Truckee Locomotive No. 13
THE SONOMA – North Pacific Coast Locomotive No. 12
LOCOMOTIVE NO. 1 – Nevada Short Line Railroad
THE GENOA – Virginia and Truckee Locomotive No. 12
THE C.P. HUNTINGTON – Southern Pacific Locomotive No. 1
THE GOV. STANFORD – Central Pacific Locomotive No. 1
LOCOMOTIVE NO. 112 – Northwestern Pacific Railroad
LOCOMOTIVE NO. 1010 – Atchison, Topeka and Santa Fe Railway
LOCOMOTIVE NO. 4466 – Union Pacific Railroad
EMD E-9A DIESEL-ELECTRIC LOCOMOTIVE NO. 6051 – Southern Pacific Railroad
CAB-FORWARD LOCOMOTIVE NO. 4294 – Southern Pacific Railroad
COMBINATION CAR NO. 1 – Monterey and Salinas Valley Railroad
THE SILVER STATE – Nevada Central Railroad Coach No. 3
COMBINATION CAR NO. 16 – Virginia and Truckee Railroad
CABOOSE NO. 2 – Pacific Coast Railroad
BOX CAR NO. 331 – Southern Pacific Railroad
TANK CAR NO. 145 – Southern Pacific Railroad
THE ST. HYACINTHE – Canadian National Railways Sleeper
POST OFFICE CAR NO. 42 – Great Northern Railroad
THE GOLD COAST – Georgia Northern Railroad Car No. 100
REFRIGERATOR CAR NO. 35832 – Fruit Growers Express Company

Also on display but in the old passenger station:

V&T J. W. Bowker
Whitcomb Gas Mechanical
D&RG Standard Gauge Combine #550
Sierra Ry. Coach #3
Sierra Ry. Coach #6

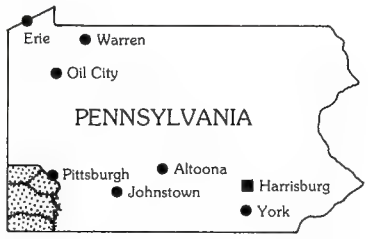


This little locomotive was dubbed "Puffing Billy" by the people who put on the Railfair 1981 show. It was built by Marshutz & Cantrell. The locomotive shuttled back and forth with a four-wheel car and a pair of disconnects with a large redwood log. Puffing Billy was restored by rail fans with the help of the State of California. She normally resides at the Fort Humboldt Museum at Eureka, California. *Photo by Bob Brown.*

This unusual builders plate is from Marshutz & Cantrell, an early locomotive builder. This company was noted for the little logging engines it built. *Photo by Bob Brown.*

This classic eight-wheeler was built by Cooke and has been lovingly restored. She participated in the Railfair 81 celebration. Notice the little Sierra Ry passenger car coupled to #8. *Photo by Bob Brown.*

NARROW GAUGE of the PENNSYLVANIA LINES



The Waynesburg & Washington Railroad

by Morgan J. Gayvert with technical assistance by Larry L. Koehler

This is the first of five articles on the Waynesburg and Washington Railroad. The text will be presented in this installment along with some general photographs of this interesting railroad. The following articles will consist mainly of photos illustrating the modeling possibilities of the line. The last part will present the author's HOn3 models. Bob Brown.

This is the rather abbreviated story of a little known narrow-gauge branch of the far flung "Standard Railroad of the World", the Pennsylvania. Why the Pennsy expressed such an interest in a 29 mile shortline set in such pastoral, unhurried surroundings is unknown considering their vast holdings in other seemingly more affluent regions. Yet they were involved in the little line's colorful history from the very beginning of its existence.

The southwestern corner of the state of Pennsylvania happens to be rich in oil, coal, natural gas, and lumber as well as livestock and other agricultural products. In addition, tin products, glassware, and machined goods provided a very lucrative economic incentive to the very foresighted individual whose idea germinated into the unique and colorful railroad whose tale is as follows . . .

It was to be like any other routine trip that day; engine #9681, a 1902 product of the nearby Pittsburgh Locomotive Works, sat poised on the eastbound mainline next to the imposing brick structure which housed the corporate offices and station at First and Washington Streets in Waynesburg, Pennsylvania, preparing to depart on the same journey it had made for 27 years. Behind it was the rather small but familiar two-car consist of baggage/express car #12 and coach/observation car #13.

Those 27 years were very much in evidence on the flanks of this equipment and on the other rolling stock which sat on the sidetracks in the adjacent yard awaiting a call which, for many, would never come. The tuscan red coaches, now faded to a bleached purplish brown, seemed as if they would always be a part of the local scene.

The Washington bound traveler this particular morning ascended the steps of #13 and, stepping inside, found the worn but familiar seats ready to welcome him as they had done since it had arrived on the property, second hand, way back in 1910.

It almost seemed as if what was about to happen could only be a bad dream for this venerable road, but such was not the case. The reality of this day was that it was Tuesday, July 9, 1929, the day of the last passenger train on the Waynesburg & Washington Railroad, a sad victim of changing tastes and times. This was to be the termination of a service which had its origins 55 years earlier as the result of the foresight of Mr. John M. Day, formerly of Morris Township, Greene County, Pennsylvania, and then of Iowa, from whence he expressed his view favoring the construction of a narrow gauge railroad between the towns of Waynesburg and Washington in Pennsylvania in a lengthy communique to the editor of the *Reporter*, a worthy local newspaper in Washington.

His 1874 letter conveyed the opinion that if the progressive and industrious citizens of both Washington and Greene counties wanted to make their presence felt in the economy of the state they would do well to consider the monetary blessings that would certainly be theirs if a direct rail link between their respective county seats were constructed.

His effective rhetoric produced the desired effect, for soon the district was fairly buzzing with gossip concerning this suggestion. The citizens felt that the idea had merit, for on a briskly cold January 27th in 1875 action was taken which laid the groundwork for what would officially be known as the Waynesburg and Washington Railroad Company. After electing officers and securing a charter, contracts were let for grading a right-of-way that would eventualy include no less than 174 curves of various tortuous proportions and 36 bridges in a distance of just 28.16 miles. It was jokingly said that the surveyor was paid by the mile for his services since the crows-flight distance between the two terminals was only 17 miles.

The Donague brothers of Altoona, Pennsylvania were granted the grading contracts at $1,000 per mile with sections two through 19 being sublet to local construction companies. Work was done by pick and shovel, assisted by horse drawn graders, and began in the summer of 1875. Owing to right-of-way disputes, contract problems, seasonal changes, and financial difficulties, however, it was spring of 1877 before rail could be laid. By November, 1877, though, the line had reached from Washington to the west side of Waynesburg and regular service was begun.

Shortly after the laying of rail began, the first piece of motive power arrived on a bright May 18th, a trim, diminutive 14 ton 2-4-0 from Porter, Bell and Company (later H. K. Porter) in nearby Pittsburgh. "A rolling showpiece", according to the late J. B. Conley of Woodsfield, Ohio, Superintendent of the Central Region of the Panhandle Division and a former Conductor on the W & W. "It was my privilege, at the age of six years, to take a ride, along with my father, on the locomotive of the construction train. The locomotive was in charge of Mr. John Umplety and his son, Harry, who occupied the left side of the cab. The engineman was of a rollicking disposi-

tion and soon made me feel at home aboard that monstrous piece of machinery of perhaps 20 *(sic)* tons. This locomotive was #1 and, in addition to the number it was dubbed "General Greene". It was very elaborately trimmed in shiny brass and made a very showy appearance. The drive wheels were four in number of, perhaps, 28 inches in diameter (actually 36 inches). This was one of the few important events of my childhood and is stamped on my memory as if happening only yesterday."

The "General Greene" was part of a construction train which consisted of three flatcars delivered 10 days before the locomotive. One of these flats was converted into an open excursion car, called the "continental car", and then boarded up as a smoker coach. As no photographs of this car are known to exist, its exact configuration is a matter of conjecture, but very likely it was a monitor roofed car about 30 feet long with rather spartan appointments. Perhaps a long lost picture of this second class coach will eventually be found.

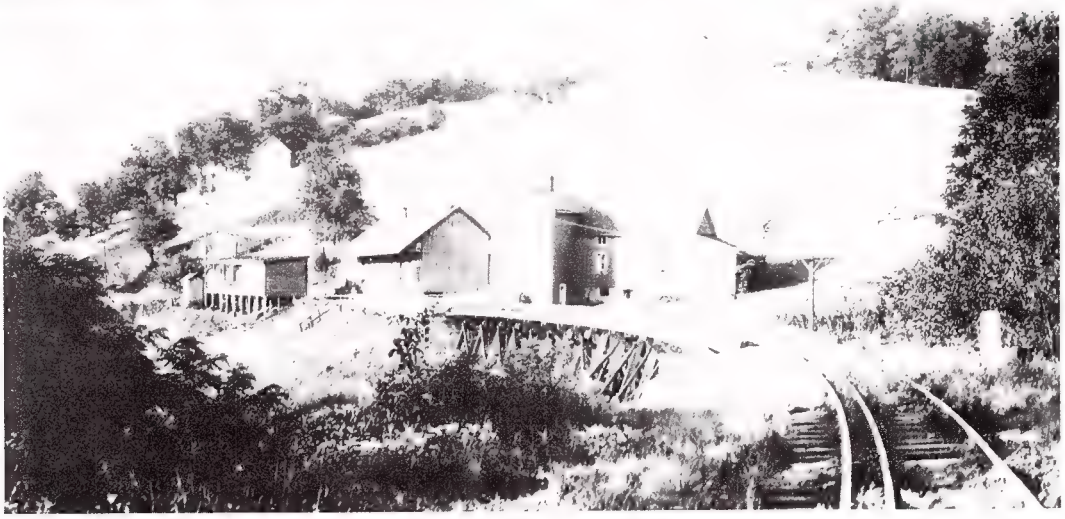
Passenger operation on the W & W in the early days was rather loose at best. Those who wanted conveyance would merely wave to, or "flag", the train from trackside and board when it stopped. This gave rise to the mirthful moniker taken from the initials on the tender's flanks – the "Watch and Wait".

Even with a rather unheralded beginning, passenger service traffic began to prove very promising. A regular schedule was drawn up within a month and the W & W began to expand its equipment roster. On October 5, 1877 a coach was delivered from Billmeyer and Small's York, Pennsylvania Car Works and on October 31, just before the line reached Waynesburg, engine #2, the "General Washington", was delivered from National Locomotive Works in Connellsville, Pennsylvania. As the first passenger engine this 4-4-0 was immediately pressed into service on the now completed mainline, with an intermediate stop at the only siding to wait for the freight train. This was at Hackney.

In December another Billmeyer and Small coach was delivered and in October, 1878 yet another B & S car was added. In January, 1881 a second 4-4-0 came from H. K. Porter and was put into operation with a minimum of ceremony. Numbered 3 and named "General Wayne" it joined its stablemates and began leading the daily accomodation train. In February, 1883, a fourth coach was delivered from Billmeyer and Small while, in January, the third B & S coach was converted into a passenger/caboose, and the smoker was changed into a caboose. By this time the W & W had six passenger cars in operation – the three B & S coaches and three home-built monitor roofed baggage cars – as well as the B & S passenger/caboose and the smoker caboose.

As early as 1878 a connection to the Pittsburgh, Cincinnatti & St. Louis Railroad's Chartiers Railroad had been proposed and in 1878 a connection was made to the Wheeling, Pittsburgh & Baltimore Railroad (later Baltimore and Ohio) in Washington. A combined connection with the B & O and with the narrow-gauge Pittsburgh Southern Railroad, which ran from Washington to Pittsburgh, was maintained for several years by means of an unusual wye built on a trestle over the ravine between the W & W and the other two roads. For reasons which are unclear this far removed in time, since the W & W had cleared its float debt by the end of 1884, the line was sold to the P C & St. L in the summer of 1885 and a connection to the Chartiers Branch was eventually made, with the B & O connection being severed. When the PC & St. L became part of Pennsy's Lines West operations the W & W served the remainder of its history as a Panhandle Division branchline.

Number 9681 (W&W #1) picking up an extra passenger car in the Waynesburg yard for the last train to Washington on July 9, 1929.



Dunns station looking north from past the trestle. The trestle was approximately 200 feet long and 30 feet high. These buildings are still in place today but very deteriorated. The station is used for storing hay.

The second #3 and its train pose for their portrait in this superb glass plate photo taken in Waynesburg around 1903.

By 1899 the press of customers was such that the steamers already in service were unable to meet the demands of the ever growing business, so in June of that year the W & W took delivery of their first 2-6-0, or Mogul, locomotive. This was the largest locomotive to date on the line – 42 tons of iron, steel and wood. It was a more utilitarian machine than its predecessors and lacked their lavish appointments, but it outstripped them all in tractive effort. The center driver was flangeless, or 'blind', due to the necessity of traversing the numerous tight curves on the line. Indeed, even with curves ranging down to 35 degrees 20 minutes (that's about 162 feet radius, folks) and a ruling grade of 2.88 percent, this engine proved so successful that it was copied seven times more in the future, with the last one being delivered in 1920.

In the 1890's freight traffic was certainly taking no back seat to the more glamorous passenger operations and should be noted since the W & W derived its "bread and butter" from the workaday freight fleet. At the beginning of 1893 the roster included 53 freight cars of 20,000 pound capacity including flats, gons, hoppers, boxes and stockcars.

By the mid-1890's the oil and gas boom in southwestern Pennsylvania was in full swing and the W & W hauled over 1,000 carloads of pipe for the Carnegie and Philadelphia Gas Companies in less than four months in 1895. The line was forced to run two extras each day during this period to handle the tonnage.

November 1892 saw the arrival of two new coaches, numbers 5 and 6, from Jackson and Sharp Company, Wilmington, Delaware. Engine #5, from the Pittsburgh Locomotive Works, arrived on April 11, 1896 and in May, 1899 a coach and a baggage car were purchased from the recently standard-gauged Cincinnatti, Lebanon & Northern Railroad. They were numbered 8 and 14 respectively. More Moguls came to replace the aging, early power which, by now, was unable to handle the tonnage. Second numbers 2, 3 and 1 were delivered in 1900, 1901 and 1902 respectively. Also, late in 1901, coach #7 was bought from the CL&N and in 1902 four passenger cars were purchased from the recently standard-gauged Burlington and Western Railroad in Iowa. These were coaches number 9, 10 and 11 and RPO/baggage combine #12.

In October, 1910 combine #12 was wrecked and coach #11 was converted to second #12, a baggage/express car, to replace it. Second coach #11 (as a replacement) and coach/observation #13 were purchased from the Castle Shannon Railroad. Number 13, originally used as a business and pay car, was demoted within a few years to the status of ordinary day coach even though it kept its observation end intact. This was the last passenger rolling stock bought by the W & W.

The freight department continued to increase during the first decade of the new century. The line began to replace its 20,000 pound capacity cars with 40,000 pound units in 1900 and by 1905 had purchased 81 of these higher capacity cars. Then, between 1905 and 1910, they replaced the remainder of the 20,000 pound fleet (and added to the total numbers) with 51 60,000 pound cars. At the end of 1910 the line boasted a freight fleet of 154 assorted cars and two bobber cabooses as well as several pieces of maintenance-of-way equipment, including two old boxcar-caboose-maintenance-of-way converts.

The Great War loomed on the horizon and it became evident that, with the sinking of the great liner 'Lusitania', America would serve in this ghastly, global conflict. All resources would, of necessity, be sorely needed. With this thought in mind, and needing to replace #4, the W & W accepted delivery of second #4 from Alco's Cooke Works, ' Paterson, New Jersey, in May, 1916. The wartime economy provided a brisk traffic in coal and oil, which kept the line "in the money" for the duration.

The W & W didn't escape untouched from the war, however, for in August, 1917 seven boxcars were destroyed by fire at the tin mill in west Waynesburg. They were replaced with a like number from the Ft. Wayne shops of the Pennsy after approval was received from the USRA.

At war's end the rolling stock of the W & W was at an all time high with three bag-

gage/express cars, two RPO/coach combines, seven coaches, one coach/observation combine and 155 freight cars consisting of 56 boxcars, 18 stockcars, 68 gondolas, 10 flatcars and three tankcars (two of these were tanks strapped to flatcars and the third was a UTLX bought about 1912) as well as the two bobbers.

The W & W came out from under USRA control in 1920 as the Waynesburg and Washington Branch, Panhandle Division of the Pennsylvania Railroad System due to a Pennsy corporate streamlining, and most of the rolling stock, with the exception of a few of the freight cars, was lettered "PENNSYLVANIA". The last motive power was received in June, 1920. As of March, 1920 all engines were numbered within the Pennsy system with the former road number tacked onto a #9680 series number. This last one, #9687, had one major distinguishing feature. Its broad, squat sandbox was nearly as big as its steam dome. Its tender shared the same characteristics as its next younger partner, second #4, in that they were delivered with very 'Alco-ish' coalboards above the tank tops as compared with the "standard" Pittsburgh bunkers delivered with earlier power.

The completion of U.S. Route 18 as a paved road between Washington and Waynesburg (and the competition for passenger traffic engendered by the new Blue Ridge Bus Line) in 1924 marked the beginning of the end for this hardworking and beloved little narrow-gauge. Ironically, the equipment and materials used to construct the paved road were hauled to the site by the W & W. Carded schedules showed four round trips per day for passenger and two for freight trains after 1907, but by August, 1925 the passenger runs had been cut to two per day and the Sunday trains were discontinued.

As the 1920's dawdled toward the 1930's the W & W continued along, seemingly unperturbed by the world-at-large, which was by this time viewing the old "Waynie" as an anachronism. Bit by bit, as the roads became crowded with "them danged autymobiles", passenger traffic declined even further. Freight seemed to fare better, at least for a while. The locals still viewed their longtime friend as one whose comings and goings were intertwined into the very fabric of their daily lives. The pleasing, melodious, brassy hoot from the three chime whistles of the locomotives had greeted resident and traveller alike from time immemorial it seemed. It came as a shock to some to learn that it soon would be heard no more.

On June 10, 1929 the Pennsylvania, through the Pennsylvania Public Service Commission, obtained the approval of the I.C.C. to discontinue passenger service on the line upon 30 day notice. Finally, after a flurry of local sentimental excitement, on July 9, 1929, the final day arrived.

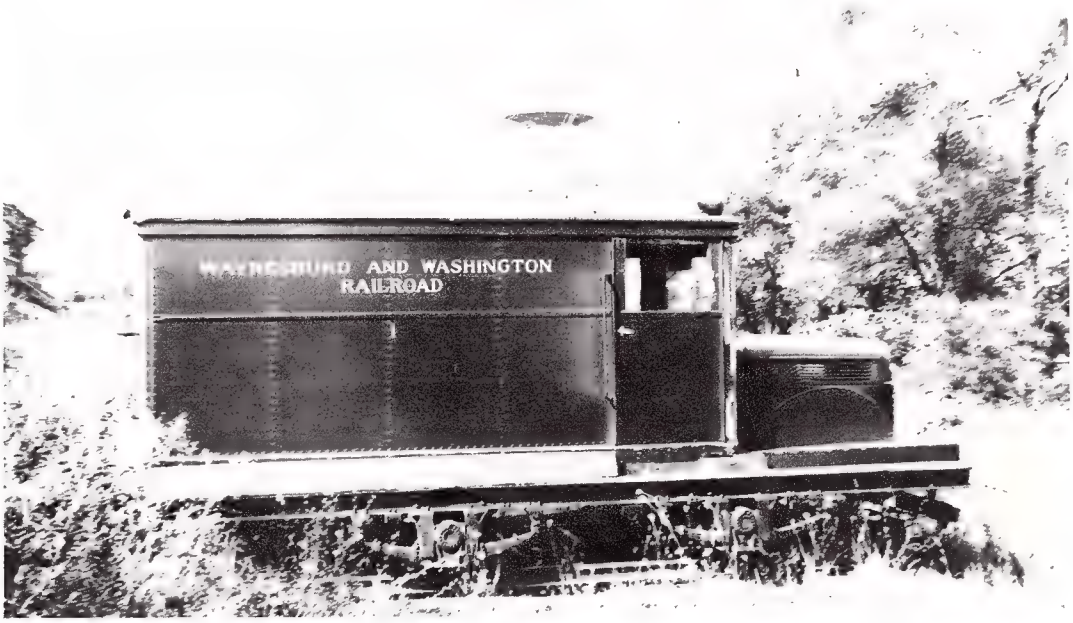
At Waynesburg Station the scene seemed rather normal to the casual observer. Engine #9681 steamed softly to itself, its oil spattered running gear weary testimony to thousands of miles in revenue service. The pungent scent of coal smoke and oil permeated the surrounding air like an offering of frankincense to the dying. A sporadic series of thundershowers fell during the day, almost as if the heavens were weeping for this romantic little road.

Cars number 12 and 13, which for the past few years were virtually the standard consist on this run, greeted many last time (and a number of first time) riders, from toddlers who had a childish fascination with it all to the saddened faces of those whose memories could still reach back to the now distant past and gems from their own childhood. Their youth was now passing in review as their longtime companion bade them farewell.

At long last the sad moment arrived. Conductor James Lazear Shull, affectionately called "Leisure", a 27 year veteran of this road, tugged the signal cord and the bell in the cab of #9681 rang twice. Engineer Harry Wood gave two blasts of the whistle in response and the sad procession was under way. Fireman W. A. "Skinny" Iams tended the fire with a deftly handled #3 scoop and viewed the departure of this particular train with a great amount of

Number 9684 (second W&W #4) works a mixed freight out of Waynesburg yard during its final days on the W&W. The tank car behind the tender is a homebuilt car for the oil traffic which was very common in the Waynesburg area.

The second #1 arriving in Washington from Waynesburg on the last run on the W&W on July 9, 1929. Note the Pennsy 2-8-0 on the left.



Waynesburg & Washington railcar #1 on the line behind the Hazel-Atlas Glass Company in Washington, Pennsylvania. This vehicle ran from 1932 until the end of rail operations on the railroad. It was powered by a flathead Ford V-8. This unusual "Dinky", as it was called, was the sole piece of power on the line after steam was gone.

sadness. The time was 1:30 p.m.

As the train wended its way eastbound it was greeted at almost every stop and at spots along the right-of-way by numerous, familiar faces, some tearful, bidding farewell. During the trip 9681 developed a cylinder leak and, upon arriving in Washington around 3:30 p.m., was replaced by engine 9684 for the westbound run.

The Washington scene was almost a repeat of Waynesburg as train time approached. About 4:10 p.m. the last scheduled run of a W & W passenger train began. When it eventually arrived in Waynesburg at about 6:00 p.m. Conductor Shull, who was visibly shaken at this point, refused, for sentimental reasons, to take the "special" for the local Kiwanis Club. The job passed to Walter R. "Bones" Syphers, normally a freight conductor. "Skinny" Iams passed the shovel to young Arleigh J. Petit who, as an extra fireman, supplemented the money for his education at nearby Waynesburg College, working part time.

At this time, also, the consist was changed to accomodate the press of people on hand to say farewell to the W & W, represented by the Waynesburg Chapters of the Kiwanis Club, the local American Legion Post and the Waynesburg Citizens' Band. Baggage-Express #12 was dropped from the train and an open gondola was tacked on to the rear for the benefit of the band and their instruments. The entire consist was decked out in red, white and blue bunting by the enthusiastic participants who boarded the train like kids on a picnic outing, carrying placards with phrases like: "Like Coolidge, We Won't Run Again", "Pray As You Enter", "On Hills, Help Push" and "Don't Laugh, Wait!"

All on hand appeared jubilant and mirthful for this occasion, all, that is, except one poor soul who, upon seeing this slap-in-the-face to his old friend, grew increasingly outraged by the callous flippancy, he felt, was being expressed by those on hand. Conductor "Leisure" Shull became adamant about his refusal to participate in this "circus", as he, no doubt, felt it was, and would not be consoled.

When the train whistled for departure at 6:50 p.m. and slowly pulled away from the old covered train shed, 'Leisure' Shull stood at the end of the platform to watch his beloved, 27 year companion disappear around the "powerhouse curve". As the last car passed from view he was suddenly gripped by a fatal heart attack which purpled his face before he collapsed on the platform. He never regained consciousness. The local newpapers told the sad story under the headline "LOCAL CONDUCTOR DIES OF A BROKEN HEART".

When the train ground to a halt in Washington around 8 o'clock in the evening, the Washington Kiwanis Club met their Waynesburg brethren in the waiting room of the Washington Station. A piano had been dragged in, and the group spent several hours singing and lamenting the passing of the "Waynie". The return trip took most of the night, what with the many farewell stops that were made.

One final unscheduled passenger train arrived at the terminal in Waynesburg almost a month later when the reserve soldiers from Waynesburg's Company K, the old "Waynesburg Blues" returned from their annual summer encampment at Indiantown Gap National Guard Training Center where they were on maneuvers.

Freight operations continued until April 6, 1933 when engine #9684 and its train consisting of a boxcar, caboose 1001 and baggage/express #12 performed the last scheduled freight run under steam. The following day #9684 and #12 made a special run from Washington for Pennsy officials who wanted to view cleanup operations in Waynesburg.

For several years an enclosed track speeder (number 6590) made the daily round trip "freight run". In 1938 a Ford V-8 powered railcar, numbered 1, was constructed and made the bi-weekly round trips on the line. In 1943 the track was widened to standard-gauge and several wood timber trestles were filled, notably the Elm Street, Rural Avenue and Paul Farm trestles. The Ford "Dinky", as it was lovingly called, was widened to match the track. This gave it a rather curious look, with sloping sheet metal aprons covering its extended frame. Certainly one of the most unusual self-propelled railcars to be seen anywhere, it possessed a certain clean-lined look in spite of its boxy appearance. Its final disposition is unknown, but it is presumed to have been "whitelined" by the Pennsy and scrapped about 1958.

It is this particular piece of the Waynesburg and Washington that this writer vividly remembers. Many mornings, as a small boy in the early 1950's, when staying with his grandmother near the filled in Elm Street trestle, he would race to the top of the hill at the Murray Avenue crossing and wait – and wait – and wait until, finally, the old 'Dinky' could be heard in the distance out beyond the filled in Rural Avenue trestle, puttering along the disjointed track, jerking and slathering down the line, its two-tone automotive horn honking a friendly greeting as it passed this thoroughly fascinated railfan-to-be. From the Murray Avenue crossing it continued to the area of the old Wade Avenue standard/narrow-gauge transfer where, after being turned on the special 15-foot turntable, it backed down the several hundred yards to Washington Station, its rear doors open to provide better visibility for the driver.

By 1956 even this railtruck trip became an impossibility as the line became further overgrown with brush and the trestles became unsafe further down the line. A

company owned pickup truck made the once-a-week trip on the roads which paralleled the right-of-way until all service was finally abandoned in 1975.

Happily, there remain standing today, several vestiges of the old line. The station buildings at Washington and Waynesburg remain in fair condition and the wood frame stations at Dunn, Iams and Swart remain in much the same form as that in which they were built. Despite so-far futile attempts to preserve the right-of-way as a state or federal historic landmark, the rail and ties were taken up in 1978 by a West Virginia scrap dealer. It is hoped that operations on some portion of the line could someday be resumed, even if limited in distance, such operations could lead to some of the still standing vestiges of the W & W.

After steam operations ceased on the line engine #9684 was leased to the Ohio River and Western Railroad. After working for about a year on that road it was sent to Canton, Ohio for cosmetic restoration and was stored there until 1936, when it appeared at the Wheeling, West Virginia Centennial. In 1938 it appeared again, at Wellsville, Ohio on a standard-gauge flatcar as a static display, after which it was taken to Northumberland, Pennsylvania and stored as part of that extensive collection of Pennsy power. In 1958 it was donated to the city of Waynesburg and placed on display at the Greene County Fairgrounds on an open air concrete pad, where it remained for the ensuing 16 years. From there it was moved to its present home at the Greene County Historical Society Museum, and this time it was placed under a protective roof and surrounded by a chain-link fence.

As a result of the efforts of several local railfans the seemingly impossible occurred. Even though it had suffered the ravages of most "park engines" #9684 was given a complete check-up. It was discovered that the boiler was in remarkably good shape; in fact, the only work required to put it under steam again was to replace some packings, free some of the valves, clean it, oil it and paint it. The bell, whistle and steam-gauge were removed from their spots in the museum collection, polished and installed again on a nicely reworked #9684.

After some test runs on a length of track in front of its storage shed, it made its second public debut on October 21, 1978 at the Fall Festival of the Historical Society. Needless to say, it was the star of the show. Chuffing back and forth with its bell ringing and whistle hooting triumphantly after a 44 year retirement, it showed few signs of age that day and, as it rolled up the slight upgrade it barked with a muffled 'woof', leaving no doubt in anyone's mind but that it planned to be around for some time to come.

Operation of #9684 on its old right-of-way could be a reality. It certainly deserves better than it now has, although the rebirth of old number 4 was just shy of miraculous in many respects. This little "miracle" can be seen under steam from time to time at the Greene County Museum, located two miles east of Waynesburg, Pennsylvania on old Route 21.

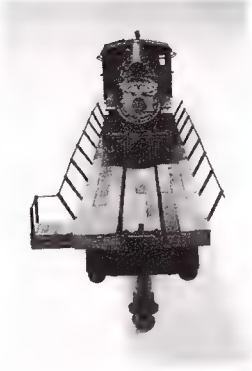
If you're looking for an end to this story, don't bother. There isn't any. Not yet, at least. Fortune may smile on the old W & W again, if those who love and remember it rally to its side and breathe life into its haunting remains it could become a first-class tourist line. All of us who do love it and remember it in stories such as this one believe rejuvenation is possible. A complete history of the Waynesburg and Washington Railroad is to be published in the near future by myself and Mr. Larry L. Koehler, an old friend and railfan. We implore our many railfan readers to forward *any and all* useful information or photographs concerning the Waynesburg & Washington to either of these addresses:

Morgan J. Gayvert
17700 Avalon Blvd., #243
Carson, CA 90745

Larry L. Koehler
35456 Edgeton Court #308
Farmington Hills, MI 48018

With your help, we can be sure of a proper place in history for the old Waynie. Someday it may carry us to a new chapter in its story perhaps with you as a part of it. Only if we forget the W & W will time truly be done with it and the story ended. Let's not let it die in obscurity.

D&RGW DURANGO 65′ TURNTABLE



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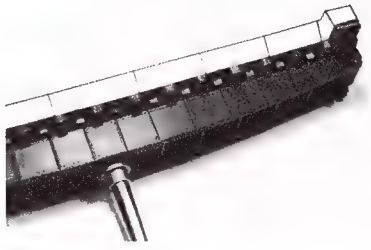

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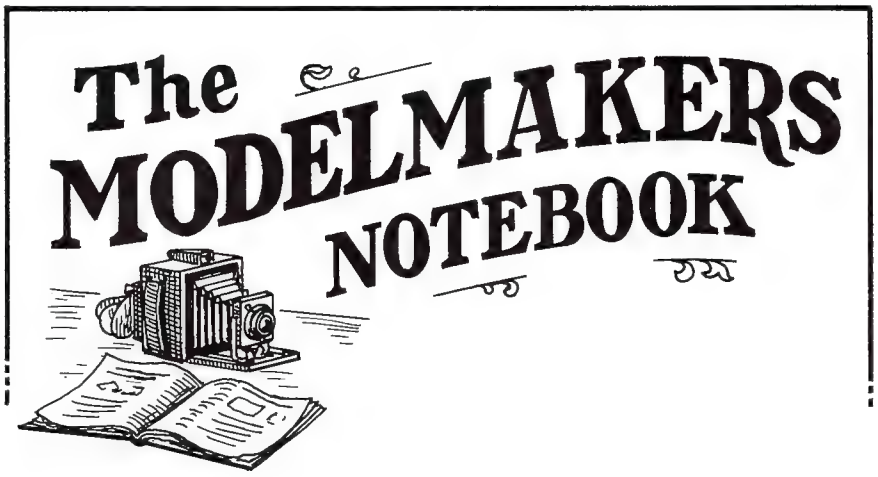


A Pile Driver for Your Logging Road

by Al Armitage
Photos by the author

The pile driver is an interesting piece of equipment which is seldom modeled. It can serve as a "load" for a work train, as scenic detail in a yard, or you could set it up in a "construction scene" building a "new" branch line off the existing track. Most logging roads had pile drivers and, since most were home-made, they came in various sizes and styles depending on the trestle work required by the logging railroad. In the Northwest a great many trestles were required to carry logging railroads through the rough country. With plenty of timber close at hand, it was cheaper, and faster, to build trestles than to "fill" a gully or a valley. Many logging lines were more or less temporary, therefore the cheapest and quickest construction was preferred.

The pile driver shown in the drawings was one of the larger, better engineered, examples of the breed and was used on the Hammond Lumber Company operations in northern California. The construction date is not known but there is a photo which shows what appears to be this machine in use about 1933. I would guess it was built sometime during the early twenties when logging was at its peak. The Hammond outfit was a fairly extensive enterprise, with trackage covering a large territory, so the machine probably saw a lot of service over the years. I shot the photos of it in 1964, in the mill yard, in Samoa, California, where it had been rotting away for some time judging by its condition.

The dimensions for the driver were supplied by the late Bert Berg, an old model-rail buddy of mine from Eureka, California. I drew up some plans for it but never got around to building a model. By a strange quirk of fate, while re-drawing the plans for this article, I got a letter from Ken Schmelzer, well known to **GAZETTE** readers for his Logging Mallet series. Ken pointed out several dimensional errors in my original drawings which he had discovered while building his On3 model. Between the two of us, I think we have finally got it right! I am also indebted to Ken for the information on how to rig the lines on the pile driver.

The driver consists of three separate elements, or sub-assemblies; the main support frame, the tower, and the hammer guide. The main frame is built on a "sled" which also carried the donkey engine. (In later years, the donkey engine was replaced by a diesel, or gasoline engine from all indications.)

Since construction is fairly obvious from the drawings, I'll refrain from a step-by-step description of how to build the machine. Strip wood is readily available from several sources and, as it happens, all the hardware items (in ¼ inch scale) along with a suitable donkey engine, are available from C.H.B. Models whose ad appears in this issue. What more can you ask for?

I suggest you start with the sled and then erect the frame on it. Note that the center posts lean outward, at the top, about 2 degrees to clear the truss rods. (See Sect. A on the plan.) Also, the forward yokes are slightly longer than the rear ones. Before you position the rear yokes, permanently, it would be wise to check the clearances of whatever donkey engine you plan to use to be sure it will fit between the yokes. You may have to move the yokes forward a bit to gain the necessary clearance. The two 8 × 8 timbers under the donkey will also have to be notched to clear the yokes.

Both the Brommer engine and the Hetch Hetchy engine are usable for the model although neither is entirely correct since they are both Hoist engines. However, the difference is not that obvious unless you want to be hard-nosed about it. Strictly speaking, a pile driving engine would have a larger boiler and the drums would be "lagged", with wood strips, to increase the diameter for faster take-up of the hammer cable. Beyond this, there is very little difference – if any. If you insist on absolute accuracy, you can find drawings for a pile driving engine in Kemtron's Plan Book #9 (X-1209 available from Precision Scale Co.).

If you use your model as part of a construction scene, you must include a supply of water for the boiler. Usually, this was piped in from a nearby pond or stream. If none was at hand the water would be hauled to the site in water cars. Sometimes water would be piped into a couple of barrels, then piped into the boiler. The barrels could be set up on the flooring ahead of the engine or just set on the trestle behind the driver. Another optional arrangement is shown on the rigging plan with the sled extended to form a platform for the barrels. A supply of wood was also kept nearby.

Getting back to the frame construction, you will note that the posts are not bolted to the sled timbers but, instead, are "dapped and gained" in place. This simply means that the post is "chamfered" at the bottom to fit into a shallow socket cut into the sled timber. This is shown in the detail sketch. The tie rods and truss rods held everything together yet allowed a certain amount of flexibility in the structure.

Tie rods can be made by using straight wire with Nut-Bolt-Washer castings covering the holes. The sled tie rods had small rectangular plates under the nuts.

Although the threaded rod for the tilting mechanism has square threads and a sharp pitch (probably a double thread) a normal screw, of sufficient length will suffice unless you think your machining ability is equal to making the double thread. A point to remember is that the slotted tongue, on the lever, must align with the hole on the lower cross strap of the hammer guide if you intend to set your model up in operating position. A bolt was used to connect the two so the ratchet lever could swing the guide either way for driving "battered" piles. These are the outer piles in a trestle bent which lean inward and the hammer guide must follow the same angle when driving them.

In building the tower start with the "A" frame. Be sure that when the hinges are installed they will mate properly with their counterparts on top of the main frame. Make sure the "A" frame can be raised and lowered to the correct positions before adding the rest of the tower structure. The rail for the guide rollers should also be installed before completing the tower. If your model is to work properly the radius of this rail must be a fairly true arc of approximately the radius given in the top

view of the "A" frame. The dimension itself is not particularly critical so long as the rollers are set up to match whatever *your* radius turns out to be. For a purely static scenic model this is not quite so important.

The rear tower support is a beam with a couple of "eyes" mounted on it. This beam is placed on top of the main frame after the tower is raised. The lower end of the tower bracing has matching "eye straps". Once the beam is wrestled into position, a bar, or a pair of bolts, is run through the eyes to hold the beam in place. The beam is not fastened to the frame in any way. The thickness of the beam should be such that it will hold the "A" frame and the hammer guide as nearly vertical as possible when viewed from the side. The tower should not have any "wobble" fore and aft. If you fit your "A" frame right, this should be no problem.

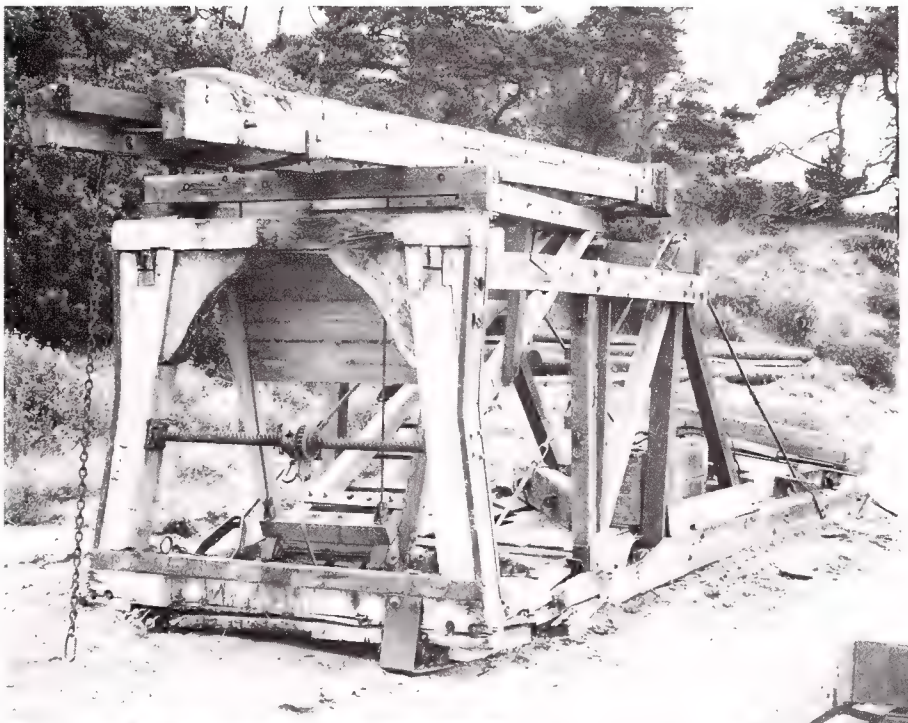
The hammer guide is simply two L-shaped columns joined at the top with a timber cap and with 3 metal straps as shown. These straps had best be made of metal on the model for strength, since they are all that holds the unit together. The channels that form the hammer "track" can be metal or styrene. Note there is a hole in the cap, under the sheaves, for the cable to pass through. The removable bar at the lower end is to keep the hammer from sliding out of the track while the machine is being moved from one location to another.

Mount the guide on the tower with the pivot bolt and mark the location of the rollers. Check the swing and if it looks correct fasten the rollers in place.

If you prefer to make your own hardware rather than using C.H.B. parts, you will find that most of the items can be made from styrene, including the sheaves and rollers. However, the hinges and the guide straps should be metal for a "working" model.

The hammer can be carved from bass wood and painted to look like cast iron. I noticed that the Brommer kit included a matching "cap" to fit over the head of the pile being driven which is a nice bit of extra detail.

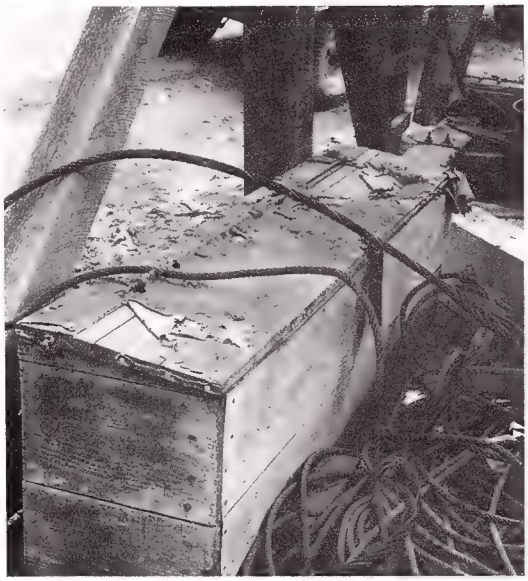
The finish of the model depends on how you plan to use it. I doubt if such equipment was ever painted so I suggest you stain the parts before assembly to whatever weathered condition appeals to you. A working model should not appear too weathered and old since it would take several years of exposure to the elements for the machine to acquire the gray-brown of old timber structures. If you don't care for the look of raw wood try a very light neutral stain. However, if you plan to use the driver as a scenic detail only you can



Left: A general view showing the pile driver folded down for moving.

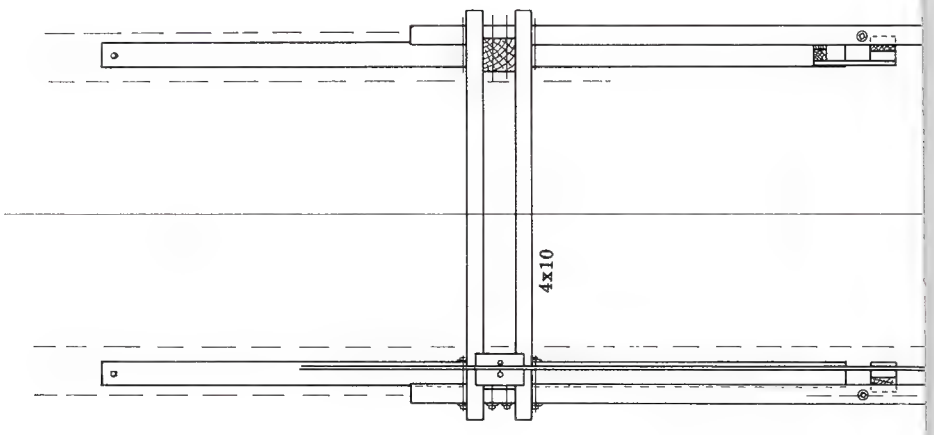
Below left: The tool box which is mounted on the main frame. This box could be loaded with all kinds of repair tools such as wrenches, axes, and shovels. It could also contain spare nuts, tie-rod ends, and other parts which might need replacement.

Below right: The rear deck showing where the engine should be mounted. Notice the heavy timbers used as engine mounts. Be careful that your engine will clear those tie rods.

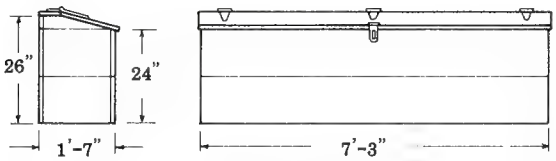


PILE DRIVER

Hammond Lumber Co.
Samoa, California
Field Dims: Bert Berg, 1964
Drawn by: A. B. Armitage
Scale: ¼ inch = 1 foot

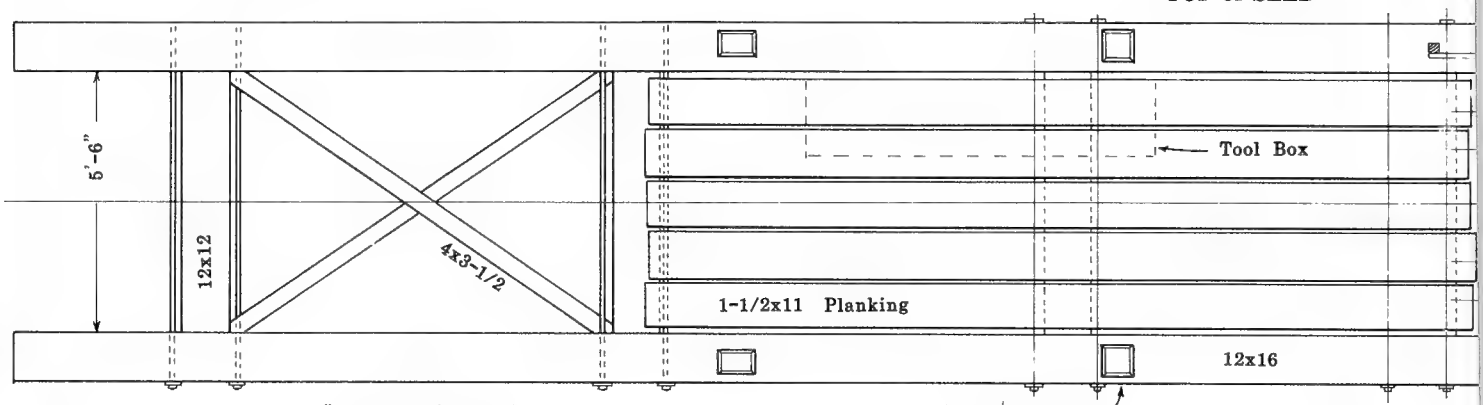


UPPER FRAME
TOP VIEW

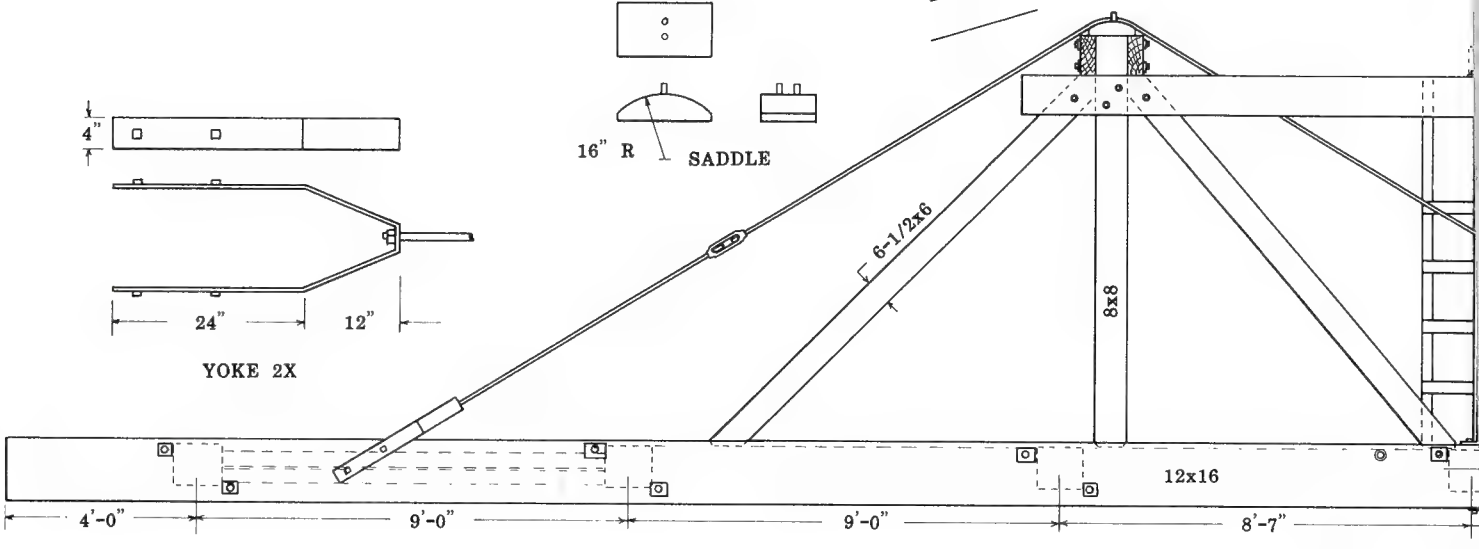


TOOL BOX

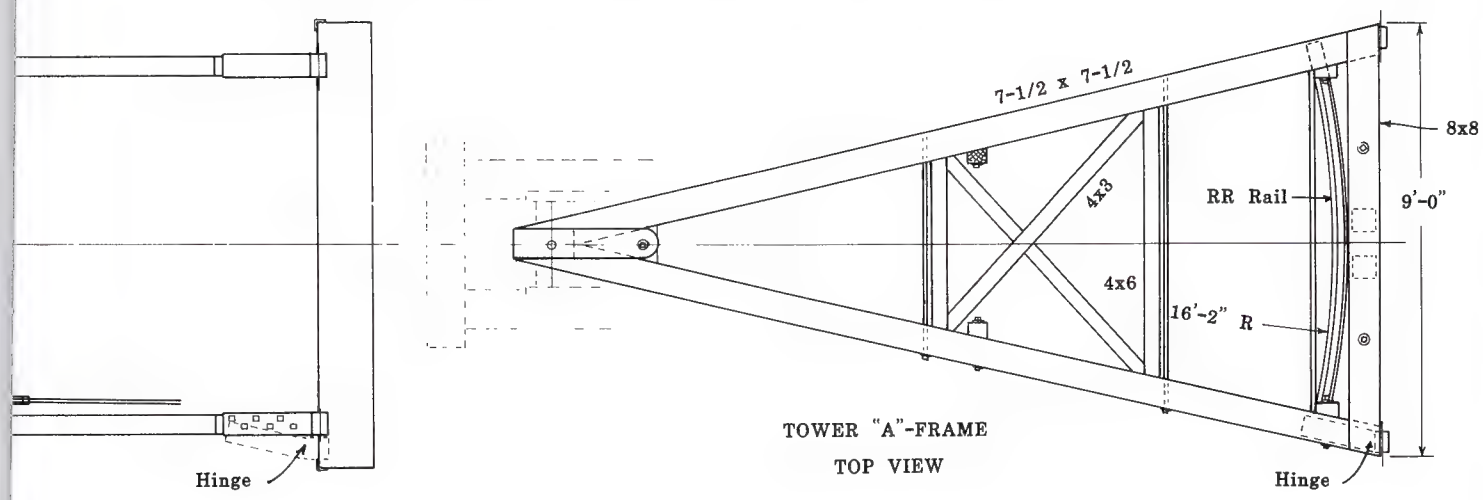
TOP of SLED



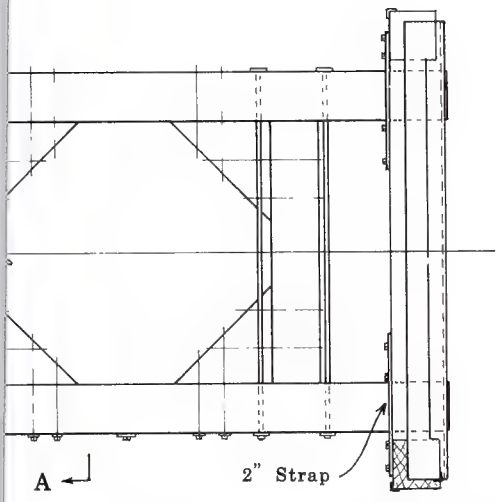
YOKE 2X

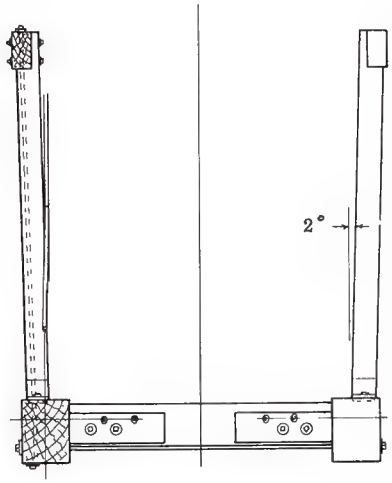


ELEVATION

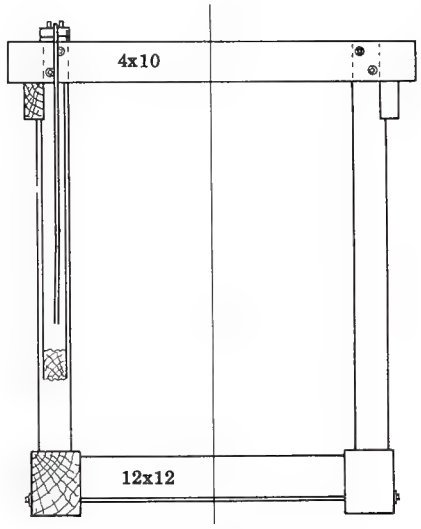


TOWER "A"-FRAME
TOP VIEW

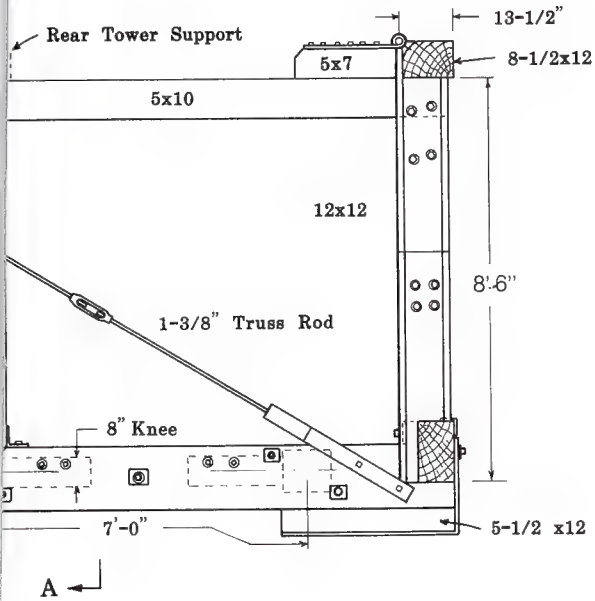


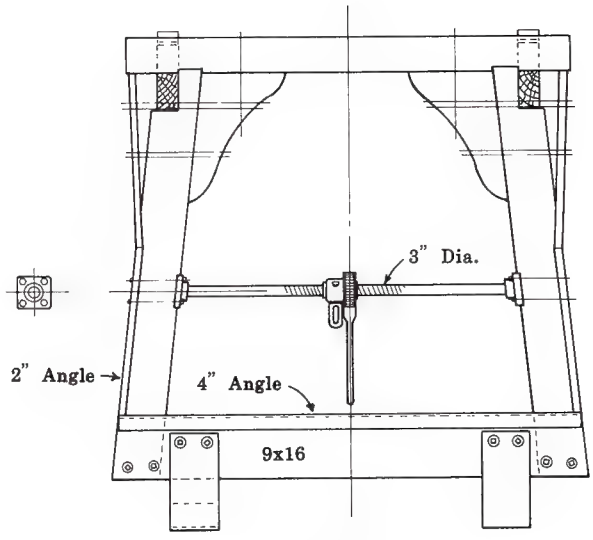


SECT A

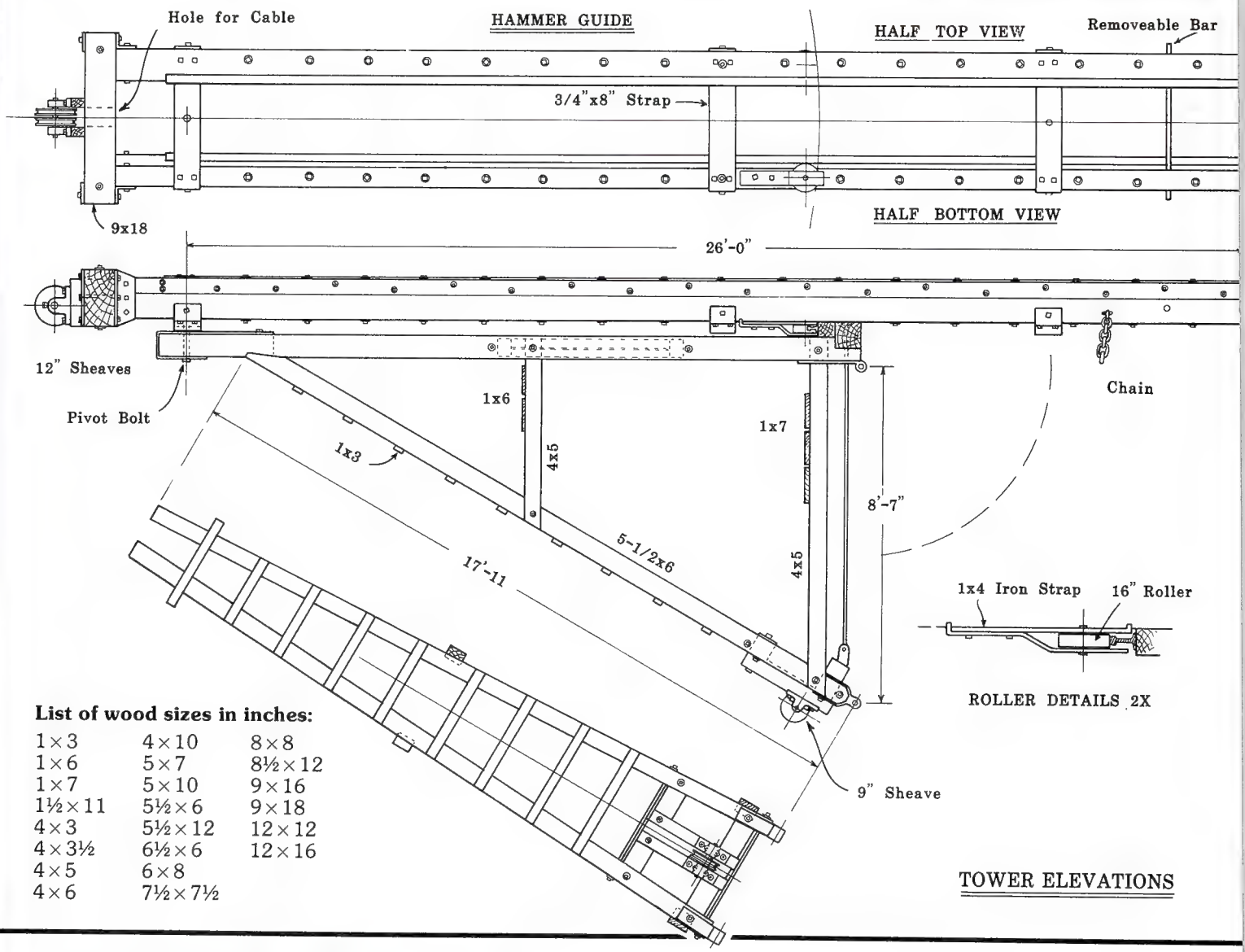


SECT B





FRONT



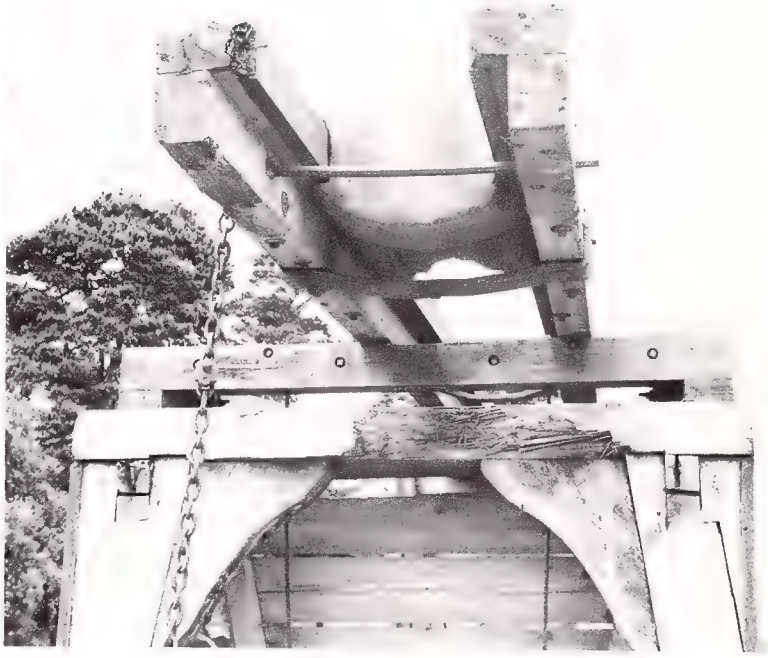
List of wood sizes in inches:

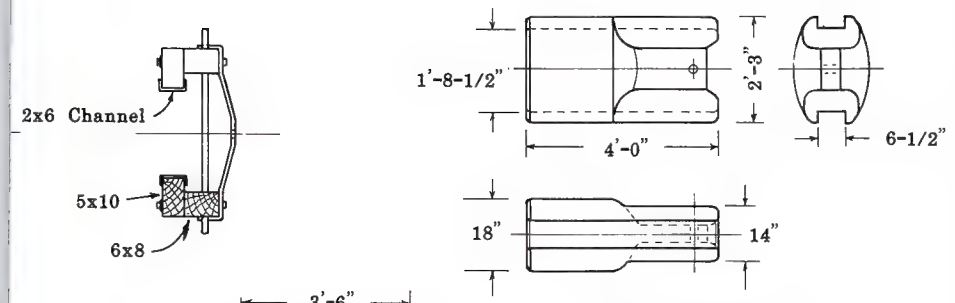
1×3	4×10	8×8
1×6	5×7	8½×12
1×7	5×10	9×16
1½×11	5½×6	9×18
4×3	5½×12	12×12
4×3½	6½×6	12×16
4×5	6×8	
4×6	7½×7½	

TOWER ELEVATIONS

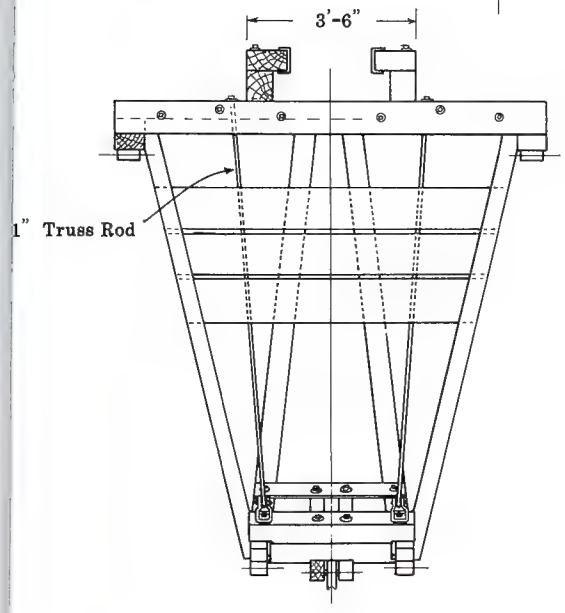
An interior view showing the pile driver folded down. Notice the roughness of the wood.

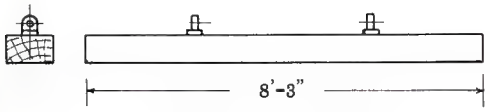
An end view of the hammer guide with the hammer and retaining bar. Notice how the timbers mate together and how rough they are.



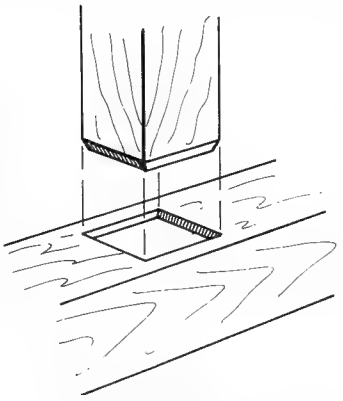


HAMMER DETAILS

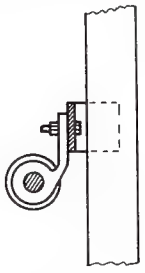




REAR TOWER SUPPORT



Dapped & Gained Detail
Not to scale



Tongue & Guide Connection
Not to scale

The left side of the pile driver in position for moving.

carry the weathering process as far as you like. The rotted condition of the machine in the photos is, perhaps, a little extreme unless your layout portrays a very modern logging railroad with a long history of operation.

Rigging the model is the final step after the donkey engine is mounted in place. The diagram shows how this is done. The hammer cable goes up over one sheave, at the top of the guide, leads down through the sheave at the bottom of the tower and back to the Forward drum of the engine. Be sure the cable clears the underside of the cross beams as noted in the sketch. The cable of the prototype apparently rubbed this area, to some extent, probably from "whipping" of the cable during operation. If your cable hits, move the engine forward to correct the problem.

The second drum was used to haul the piles into position with a separate cable running over the second sheave on the top of the guide as shown. A "choker" is a short line with a loop in it much like a cowboy's lassoo which is slipped around the pile near the upper end and hooked into the eye of the hauling cable. Piles are usually driven with their "butt", or thicker end, uppermost.

When transported from one location to another, the driver was mounted on a pair of disconnects with beams wide enough to support the sled replacing the normal "bunks". On reaching the site of the trestle construction the disconnects were removed so the driver rested on the "grade". As work progressed, the driven piles, forming each "bent", would be sawed off and capped. Then bracing would be added and the driver advanced to the position of the next bent. This was accomplished by attaching a block and tackle to a tree, a stump, or a rock, at some point ahead of the driver. A second block was fastened to the machine and the hauling end of the tackle line wrapped around a "gypsy" head on the second drum. Thus, the machine hauled itself along the partially completed trestle until all bents had been erected. The pile driver was then jacked up, temporary track was laid under it, and the trucks were once again positioned for hauling it to a new location. This must have been quite an operation.

If you plan to transport your model around the layout you'd better check the clearances pretty carefully. It makes a rather large load and will require some accurate balancing on a pair of disconnects. Good luck.

AL —o

In the September/October issue, Ken Schmelzer will describe his outstanding On3 model of this pile driver.

PRECISION SANDING
Part 2: The Solution

In Part 1 of the last issue of the **GAZETTE**, I illustrated the need for "Precision Sanding" by showing some examples of one of the most common wood-working problems in modeling – ill-fitting butt joints. I showed how these unsightly butts can result from convex or concave timber ends caused by careless hand-sanding or from razor cut angles caused by a knife or chopper. In this issue I'm going to show how I have solved the problem of getting clean, accurate butt joints.

Before I begin to worry about cutting or sanding my timbers, I make sure I have a good clean plan drawn to the scale I'm using. Also, I usually build a jig to hold the components of my structure while I test fit them and glue them in place. A jig really helps get a snug fit which looks good and enhances the strength of the joint.

Figure 1 shows my plan for a typical structure. Timber 1 has to have a clean right angle butt on the left and non-right angle on the right where it butts up against timber 2. With my Jarmac 4-inch disc sander, the 90 degree angle is relatively easy. I cut timber 1 about 3/32 of an inch too long on each end. Then I do the right angle by thrusting the timber against the sanding disc using the right angle guide on the sander and "Precision Sand" it to a perfect fit.

For the angle on the right I make a template. I trace the line AB as shown in Fig. 2 onto a piece of vellum or tracing paper. Then I trace a line parallel to C onto the paper. I mark the line AB "cut" and the line C "angle"; then I cut the vellum along line AB with an X-Acto knife. I place this template on the table of my sander as shown in Photo 1. Then I clamp a block of wood along the angle line to serve as a guide. Now I can sand the extra 3/32nd inch off timber 1. As shown in Fig. 3, the line AB now represents the place the disc surface of the sander will be when the cut is complete and the line C represents the angle of the thrust of the timber against the disc during the sanding. Photo 2 shows how I have marked the end of my timber so I won't cut too much off. This is where the jig and test-fitting really help. Photo 3 shows the jig I used to make the tipple shown in the last issue of the **GAZETTE**.

I find this method really gets nice clean butt joints. Before I leave the subject of "Precision Sanding" and the Jarmac Sander I want to mention several other things I use it for. I sand fence posts and other parts that I want to be exactly the same length on the Jarmac. I use masking tape to hold all the parts together and "Precision Sand" them to the length I want. I grind brass wire and brass parts to correct dimensions on my sander. I have a Dremel Speed Control attachment for my sander so I can slow down its RPM's enough to effectively sand white metal and even plastic.

In the next Shop Talk I will describe how I align holes for truss rods.

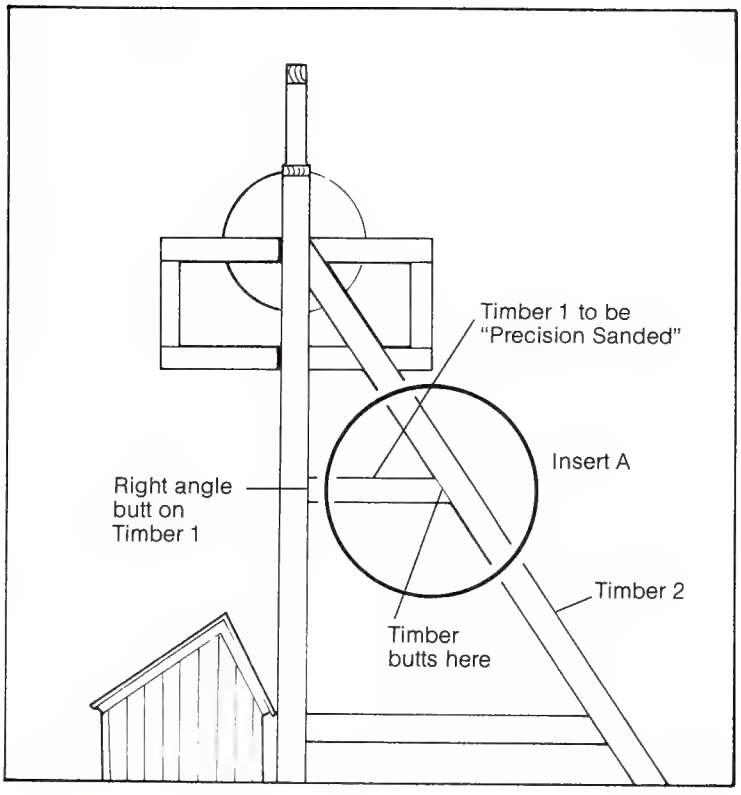


Figure 1. Vellum or tracing paper is laid over the drawing with the angle to be transferred.

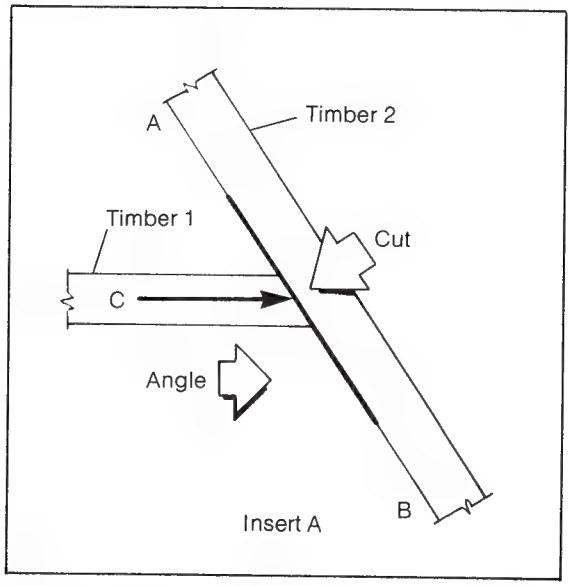


Figure 2. Line AB represents the disc plane. If the timber to be "Precision Sanded" is fed from C to AB along a guide clamped at the correct angle, a smooth, clean and flush butt can be achieved.

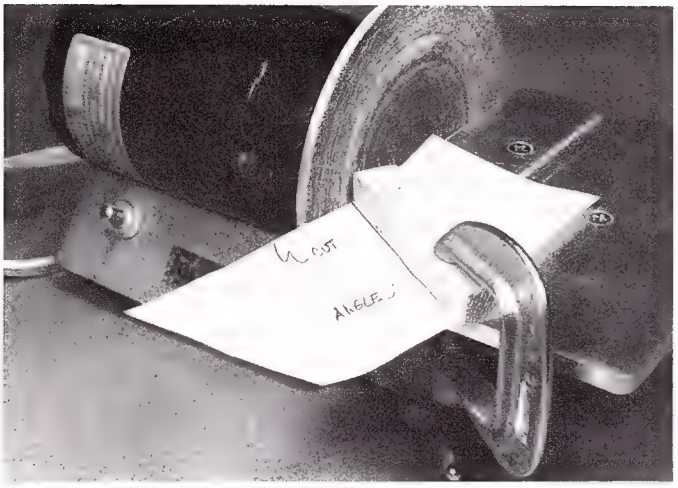


Photo 1. The tracing is butted against the disc plane and C-clamped in place by a piece of wood that also acts as a guide. Now there's an absolute angle to feed the timber along so the "cut" will be correct.

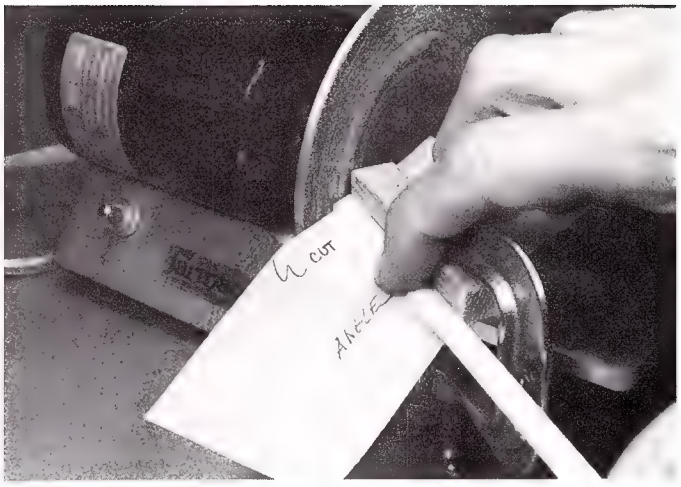


Photo 2. A timber is being fed into the disc plane. The feed angle gives a sanded "cut" which will be accurate and fit flush at the joint.

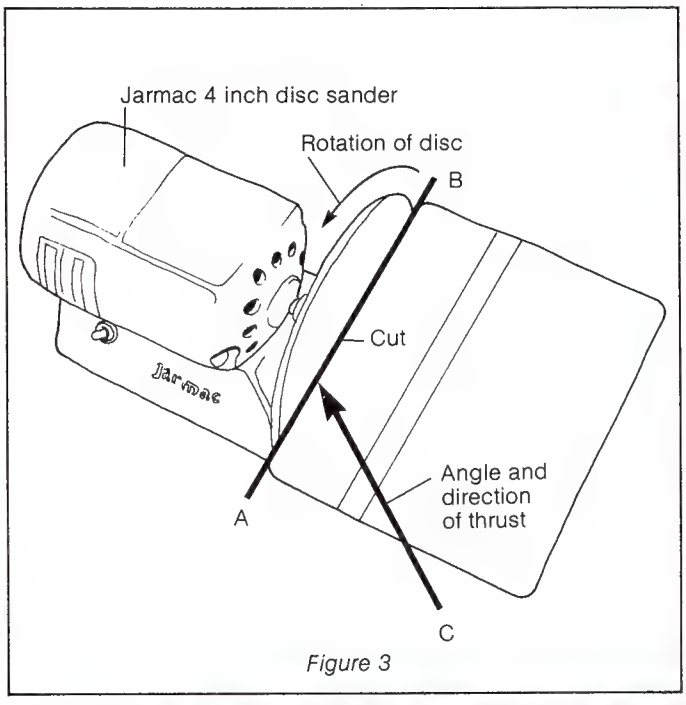


Figure 3

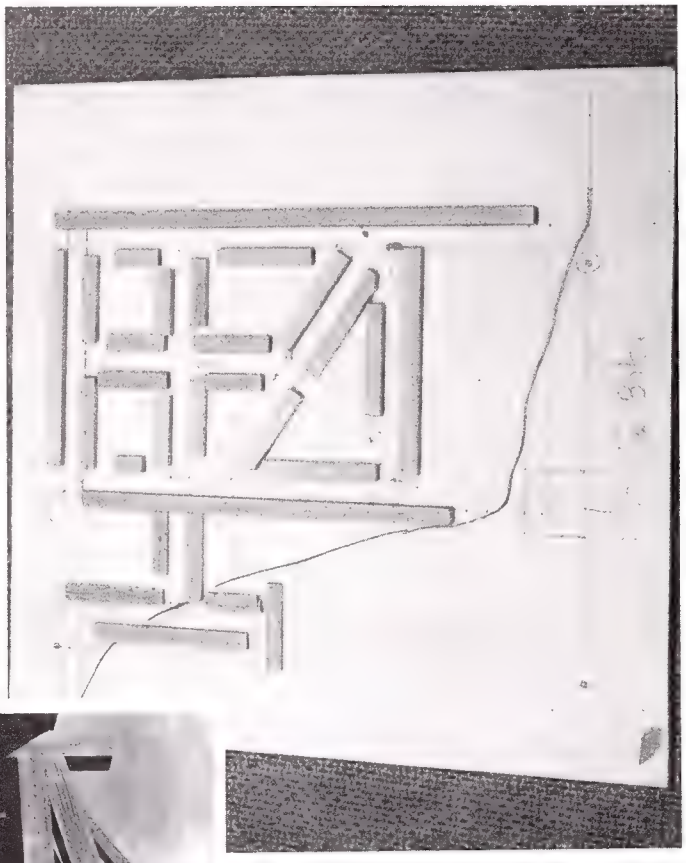


Photo 3. This is the jig arrangement that was used during the construction of the tipple which appeared in the last issue of the **GAZETTE**. Cheap-to-make jigs like this help to produce quality models which are strong and look good.

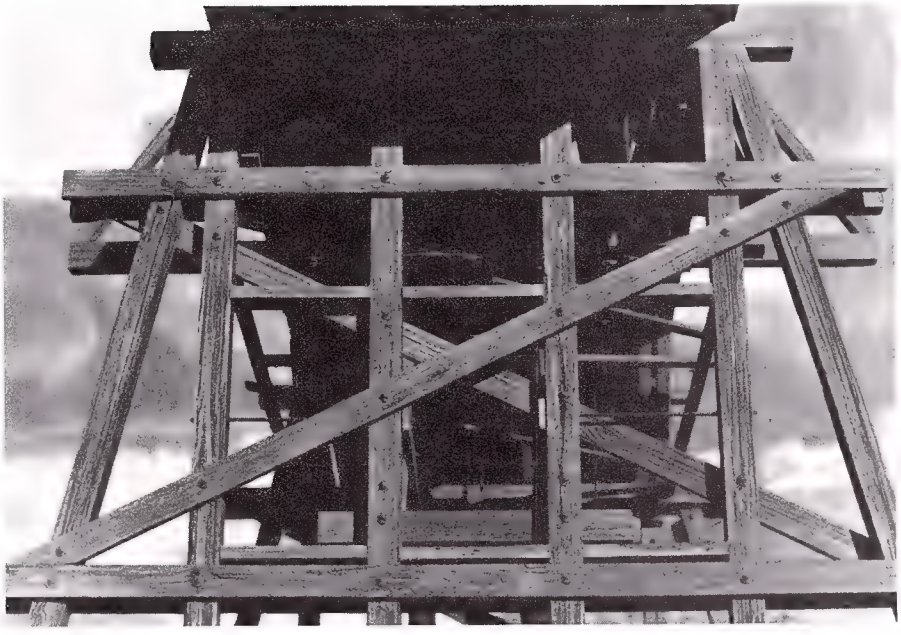
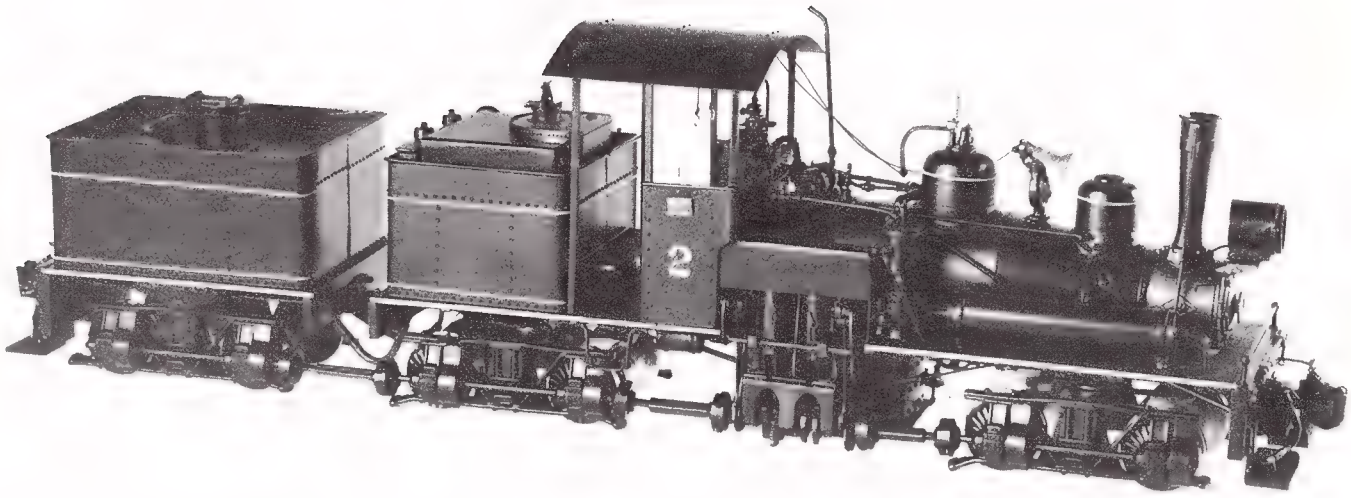


Photo 4. Under the Bridge – a photo of a model where "Precision Sanding" helped to produce flush-butted cuts. Note the fit of the outboard angled timber on the right side of the bridge and the fit of the sway bracing.

A Narrow Gauge Two Cylinder Three Truck Shay

by Roy E. Brakmann
Photos by Jim Allen

The design for this three-foot narrow-gauge, two cylinder, three truck Shay must must be credited to the imagination of Jim Allen and the engineers of the H. H. Hall Construction Company of East St. Louis, Illinois. Jim is a good friend of mine and a model builder of some repute. For example, his freelance diesel switcher was the December, 1980 **MODEL RAILROADER** Model of the Month. Jim resided in the Baltimore, Maryland area until late 1979 when he moved to Chicago. As often happens at the parting of good friends, Jim presented me with a gift, one of his NMRA National model contest winners (**GAZETTE**, September 1977) with the proviso that I build a model for him. Jim, true to his fancy for the somewhat bizarre, produced a photo of Shay #3 of the H. H. Hall Construction Com-



pany, and stated that he would like a model built along the lines of this two-foot narrow gauge engine but with one significant alteration – he preferred a three-truck version.

The basis for this model is the U.S. Hobbies On3 13-ton Shay. When you add a Grandt Line micro-motor drive this has got to be the most versatile locomotive ever produced with kit-bashing potential (with the possible exception of the NWSL Spartan Series). Jim provided the USH Shay and an extra truck for the auxiliary tender.

Except for the boiler, the entire superstructure of the Shay was discarded. The cab and fuel bunker were scratch-built from brass sheet as were the firebox and rear boiler course. All rivets were embossed with a NWSL rivet press. The cab interior including the backhead is from Precision Scale. The engine carries all standard appliances plus an auxiliary water pump. (Jim likes junked-up engines.) The oil heater and associated plumbing, and the steam brake were cobbled from various castings, wire and tubing.

The rear end beam was removed from the locomotive and saved for use on the auxiliary tender. The frame was shortened a scale foot at the rear to accommodate the universal and spline connecting the second and third trucks. New end beams for the rear of the engine and front of the auxiliary tender were fashioned from bar stock. The depressed floor section in the cab was removed and a flat floor installed level with the rear floor.

The original engine was retained since the cylinders were to be covered by a shroud. Replacement of the firebox necessitated the design of a new engine mount and construction of frame members omitted in the USH design.

The open cab really gives character to this locomotive. The lower portion was soldered to the boiler. The front and middle roof support posts were soldered to the cab sides and the roof. The rear posts have pins inserted at the base and corresponding holes drilled into the cab floor. This arrangement permits removal of the entire superstructure for painting and servicing. A bench seat was attached to the front of the fuel bunker.

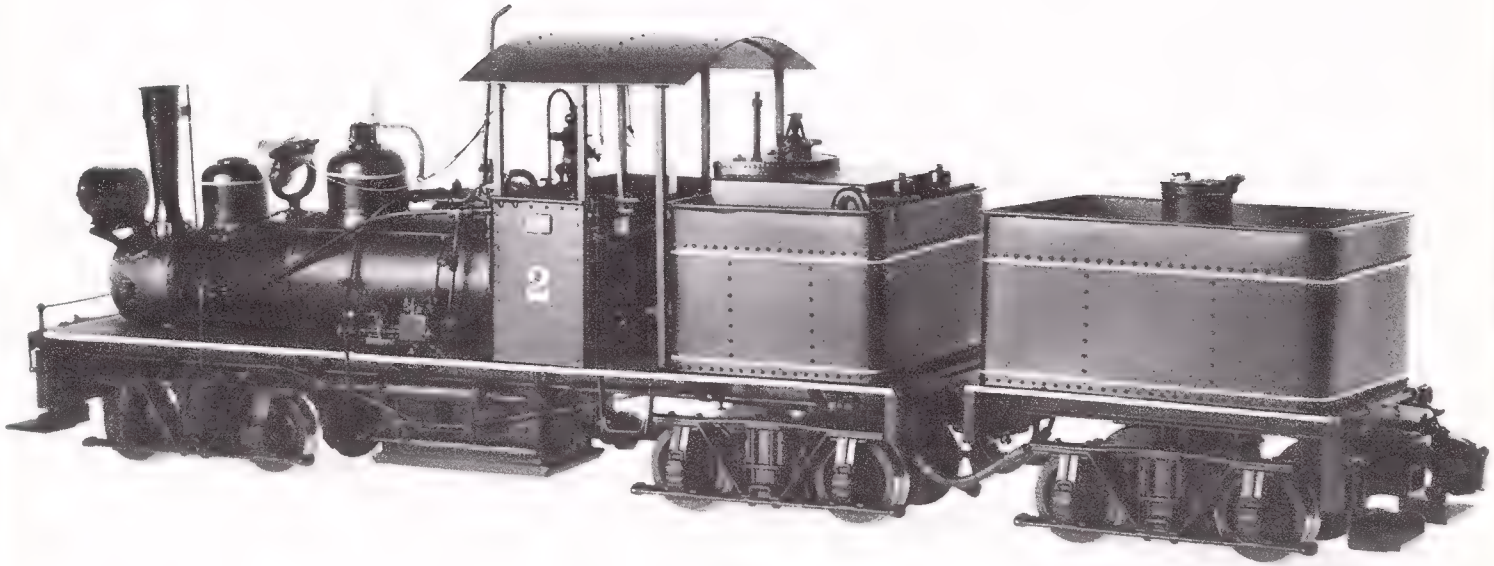
The new fuel bunker covers the same area as the original water tank and fuel bunker but was made higher to conceal the micro-motor. The tops from the original USH sand boxes were retained and placed inside the tank as was done on the H. H. Hall locomotive. Parts from the original oil bunker were retained and used on the new fuel tank.

The USH domes and stack were retained since they closely match the prototype engine. Holes in the domes were filled with brass wire and filed smooth. HO scale pop valves and smoke box cleanout plugs were installed. Brass wire and Precision Scale cored unions were used to plumb the air pump, generator, water pump and injectors. While the locomotive has steam brakes, the train brakes are air brakes. (One gets to add more junk that way.) Much of the piping had to be designed to separate at various junctions to facilitate removal of the superstructure.

The auxiliary tender was largely scratch-built except for the truck and end beam. The beading around the water tank, fuel tank and cab walls was made from .025 brass wire that was detempered with a resistance soldering unit. Passing the electrical current through the brass wire from the resistance soldering unit carbon rod to the ground wire at the lowest temperature setting causes the brass wire to become malleable, somewhat like damp spaghetti. The addition of the headlight, water hoses, rerail frog, cut levers and electrical plumbing completed the locomotive.

The locomotive was cleaned in a detergent solution and painted with gloss black lacquer. After the decals were applied a medium dull coat was sprayed over the entire locomotive. Jim prefers clean locomotives so weathering consisted of only a very light dusting of the lower areas.

Since this model didn't qualify as a "scratch-built" model, I was not interested in entering it in any contests. However, Skip Gurney of GSB Rail Ltd. came by on his way to Orlando, Florida for the NMRA 1980 national convention, and offered to take it along, So, it was really by chance that this little Shay found itself at the national convention where it won a third place ribbon. Needless to say, I was very pleased, especially because I could present Jim with a model comparable to the one that he had given to me.



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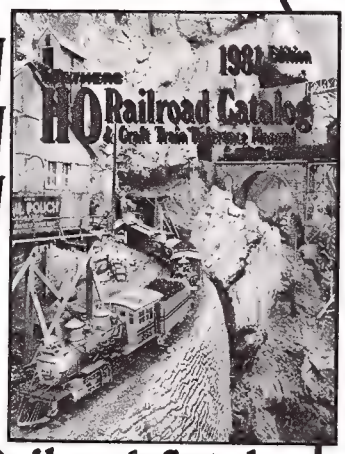

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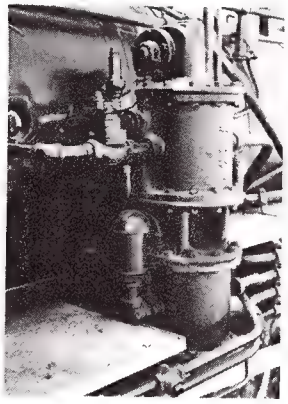

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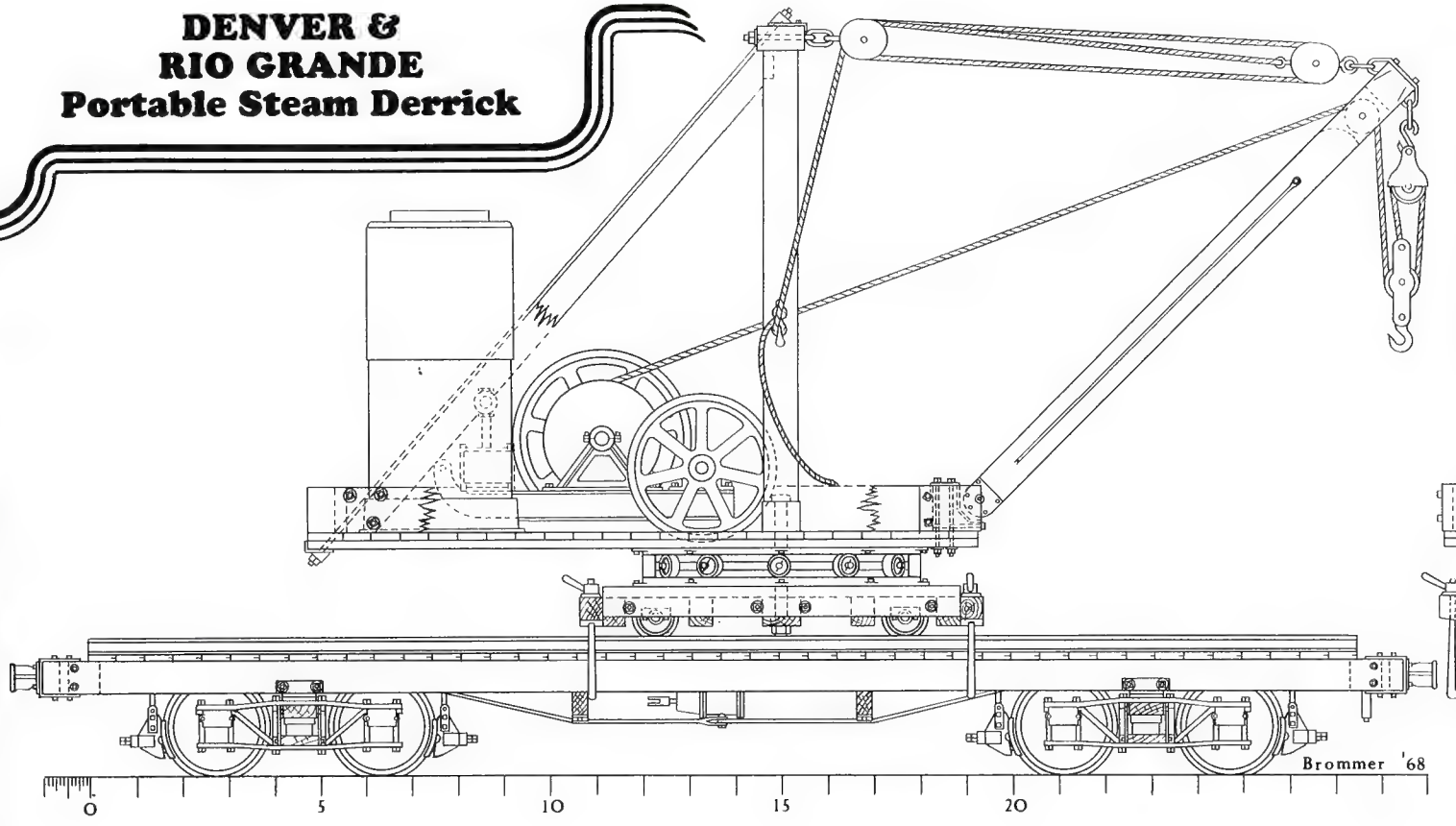

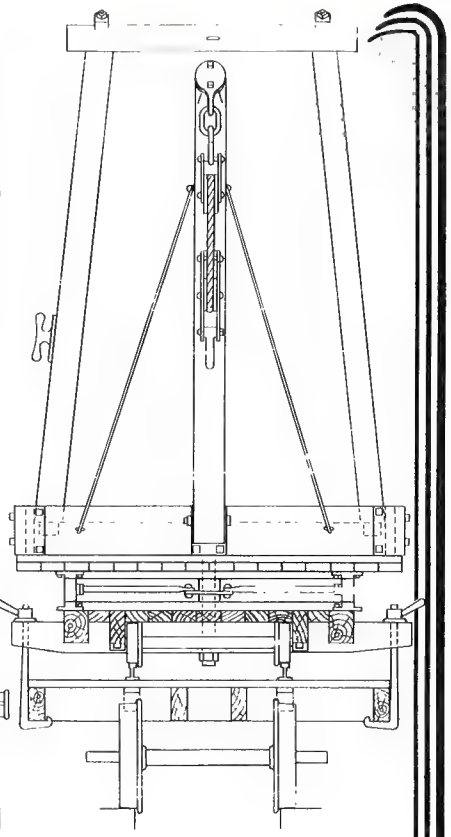

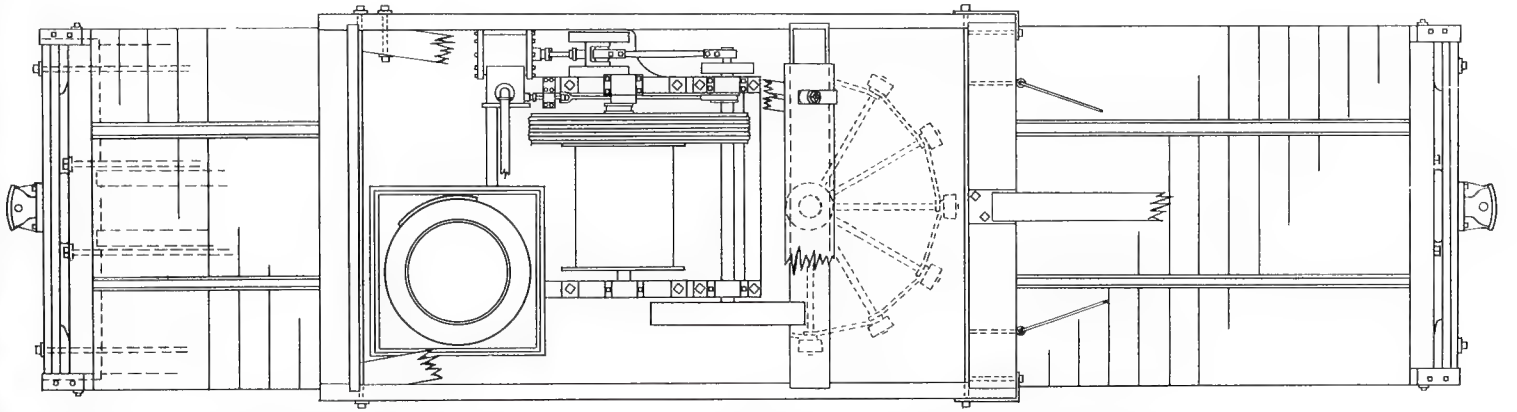

Drawn from
D&RG erecting card
by Charlie Brommer.

Scale: ¼ inch = 1 foot

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Up Clear Creek on The Narrow Gauge

Part 10: The Metcalf Grocery and The Black Hawk Post Office

by Harry Brunk
Photos by the author

In Blackhawk, the Masonic Lodge provided space downstairs for the U.S. Post Office. The Metcalf Grocery is now the Gilpin County Bank. Though the fronts appear complicated on these buildings – especially the top portions, they really present no problem if you tackle them one piece at a time.

My UC&N model varies slightly from the prototype, but only because my collection of photos was not complete during construction. It was during my further photo taking and study of these new photos that the matter of windows came into focus. Many of us use microscope slide glass for model windows. Though this seems to be the perfect material (especially in the larger scales), we have lost, or given up, a large measure of the form, texture, feel and appearance of plate glass so common to the eras we narrow gauge and short line folks like to model. Slide glass is *too* perfect. It lacks the ripples and rolls of the actual common window glass in the buildings we're modeling. Notice that large plate glass windows have imperfect reflections in the glass. I've tried to indicate these imperfections in the lead sketch in this article. Clear acetate glazing provides this imperfection naturally. Check the real thing in an old building and see what you think.

The Metcalf Grocery originally had a natural brick front with dark colored wood. For years this was a barn or box car red with a cream color for accent. That is how I finished mine. The Post Office brick was a light color always with the wood lower front a darker color, probably the same dark blue it was in late years.

The last few years have seen renovation in Black Hawk and now both building fronts are painted a depot buff color with dark reddish brown accent colors. A pleasing combination.

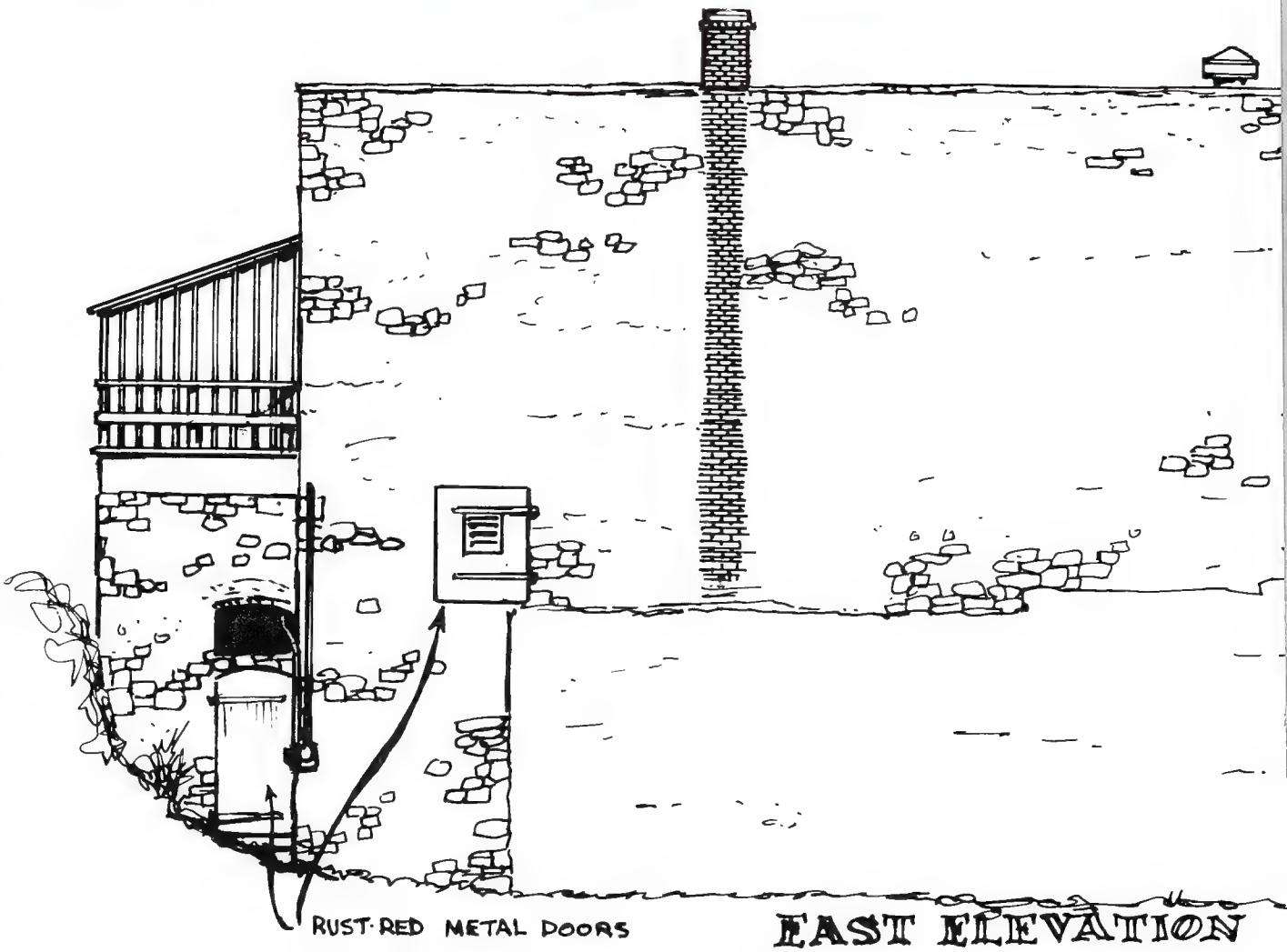
The Metcalf Grocery is one of the oldest buildings in Black Hawk dating from the 1860's. It has the same side wall rock construction as the depot and boiler works. The brick of the chimney has always been visible down through the years. The pattern of the corner building to the east is still imprinted on its side. When this mysterious brick building disappeared is unknown.

The Post Office/Masonic Lodge dates from the 1890's. It replaced a wood frame building. The west wall is a rather blank affair. The building next to it has been gone for many years. The brick is a pale pink to buff color.

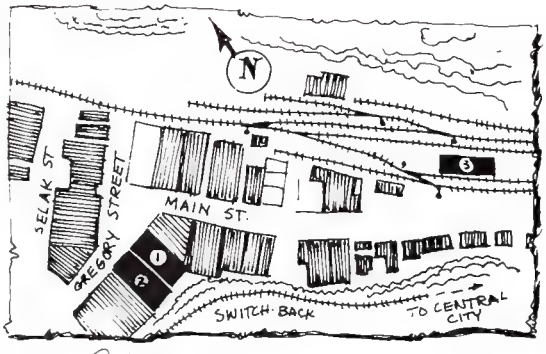
In Part 11 I will discuss another pair of buildings on Main Street just around the corner from Metcalf Grocery. I'll call them the "Saloon and the Cafe".

Title illustration: Backed up to the mountain that carried the switch-back tracks to Central City, a portion of that line's retaining wall can just be seen behind the rear upper corner of Metcalf Grocery on the left. This building now houses the Gilpin County Bank. On the right, just what it always was – the Post Office and Masonic Temple.

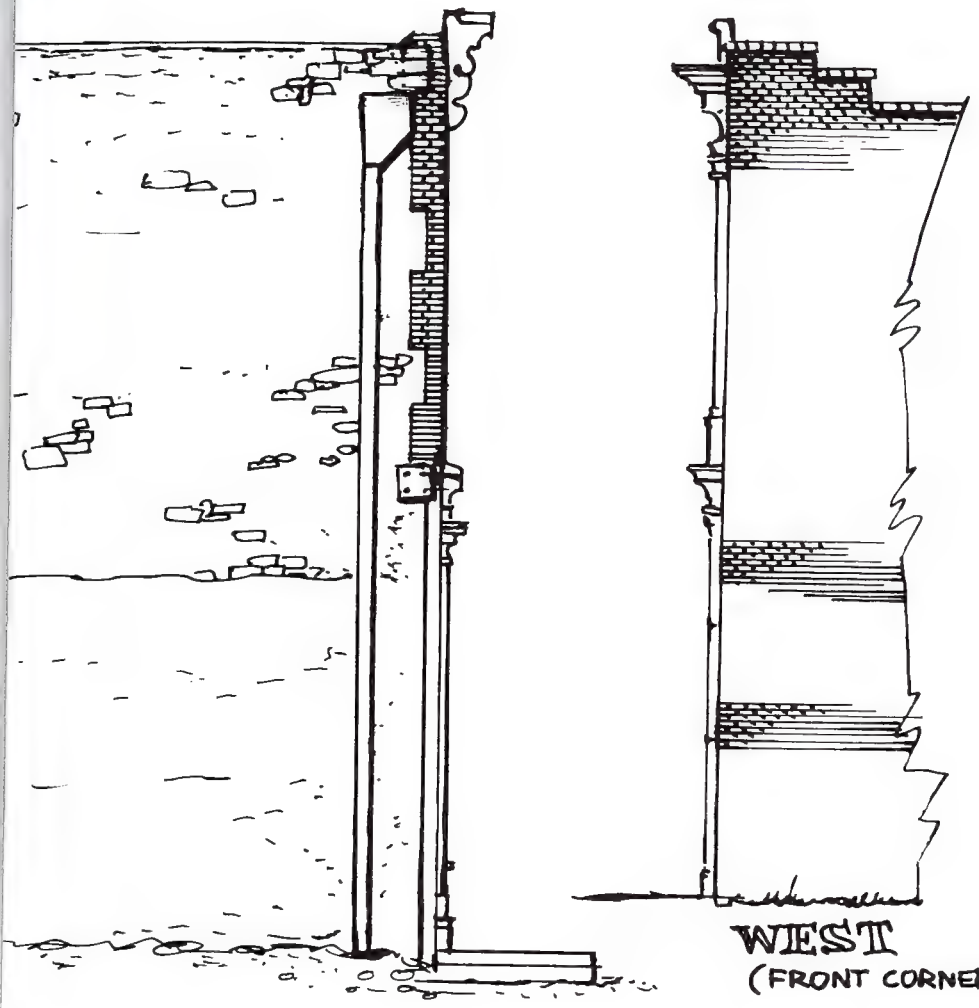
The Metcalf Grocery and the Black Hawk Post Office as they look today. The color scheme has changed and the grocery is now a bank but these buildings still hold their character.



The Main Street, or east side of the "Grocery" and Post Office showing the mortared rock construction and the brick of the chimney. The lower smoother pattern is the image of the small brick building that stood on the corner of Main and Gregory Streets.



① METCALF GROCERY
(NOW GILPIN COUNTY BANK)
② POST OFFICE (MASONIC LODGE)
③ DEPOT



WEST
(FRONT CORNER)

Drawn by Harry Brunk
Scale: 3.5mm = 1 foot

The buildings as seen on the UC&N. The Post Office sign was lettered as it might have appeared in the 1920's.

This picturesque western building was featured in the March/April 1981 issue of the **GAZETTE**. In that issue Harry Brunk provided a full set of plans and a photograph of the "Bull Durham" building which was actually the machine shop across the street from the boiler works. The Boiler Works was also featured in Harry's "Up Clear Creek" in the Jan/Feb 1981 **GAZETTE**. Both of these issues are still available if you missed either of them.

Gene Deimling took this picture several years ago in Black Hawk. Today, there is a fair amount of interest in uncovering and preserving samples of wall advertising all over the United States. This building offers you the opportunity to preserve wall art on your layout. Dry transfer lettering for this sign is available from Vintage Productions, Box 7098, Colorado Springs, CO 80933 in several scales. The **GAZETTE** has provided the plans and I hope this photograph will provide the inspiration. Why not be the first on your block to have a photo of your "Bull Durham" model in **GAZETTE**? Go on, try a building and send in a photograph. We'll do the rest. *Bob Brown.*

Drawing by
Harry Brunk.

A KIT-BASHED HON3 TANK CAR

by Mike Horner
Photos by the author

"Oil trains" once graced the D&RGW and RGS. Long strings of tank cars also showed up on the C&S around Leadville and on the Clear Creek lines. Modeling these trains in HOn3 has been difficult because only a few narrow gauge tank cars have been available. The only HOn3 tank cars available have been the one-of-a-kind CONX numbers 5, 10, and 11, all in brass.

However, if you are willing to do a little kit-bashing you can use the Roundhouse "Oldtime" HO scale tank car kit to build a variety of the tank cars found on the Colorado narrow gauge lines. This kit is available lettered or unlettered and can be had with lettering appropriate for some of the Colorado narrow gauge tanks. The dimensions of the tank of this model are 25 feet 6 inches long by 6 feet 8 inches in diameter. Its dome is precisely 2 feet high by 3 feet in diameter.

Now those kit dimensions are very close to those of CONX #8 which had a tank which was 26 feet 6 inches long and 6 feet 5 inches in diameter. The kit dimensions are also very close to those of CONX #17. Plans for these two cars (with CONX #17 shown as D&RGW water car #0459) appeared in the November/December 1980 **GAZETTE**.

Depending on your tolerance of differences from the prototype you can use this kit as a base for modeling many other narrow gauge tank cars. You could represent CONX #1 which had a 27 foot 6 inch long tank and a larger dome than #8 or #17. According to John Maxwell's plan in the article mentioned above CONX numbers 15-20, 43, and 44 were similar to #1 so they could also be kit-bashed from the Roundhouse tank. (A photo of #44 appeared in the March/April 1981 issue of the **GAZETTE**.) Some other CONX tanks could be modeled; those numbered in the 30's had tank dimensions similar to CONX #44 but larger domes. Working from various photos (especially the one of CONX #35 in Colorado Rail Annual #12), I get 3 feet (even) high by 4 feet 6 inches diameter for the domes. The frames were higher, about 1 foot 6 inches and the running boards were raised. You could also use this kit as a basis for the UTLX frameless and narrow framed tank cars illustrated in the July/August 1978 **GAZETTE** (out of print).

Given all these possibilities I decided to start with CONX #8 and #17. Before kit-bashing I always assemble all the materials needed so I won't get frustrated looking for things once construction is under way. Here is the "Bill of Materials" I made up for each car:

- A Roundhouse "Oldtime" tank car kit (unlettered)
- Plans for CONX #8 (and #17)
- A set of archbar trucks
- A pair of MKD 714 couplers
- Commercial styrene I beam (115 feet of scale 12 inch) (for #17)
- Scale stripwood (5 inches of 12 × 15 inch)
- Brass strap stock (.010)
- Brass wire (.010)
- Sheet styrene (.010 and .015)
- Grandt Line grab-irons
- A caboose ladder
- A brake wheel (those supplied with the kit are not satisfactory)
- Miscellaneous materials including paint, decals, Hotstuff or other ACC cement, plastic cement, 15 minute epoxy, and model putty.

For CONX #17 I began construction by laying out the frame using the commercial styrene I beam. Brass could easily be substituted for styrene in either of these cars because the car weight can be corrected later. I cut the I beam into 4 pieces of appropriate lengths and mitered the ends to 45 degrees using an X-Acto saw. Then I glued the four pieces together. The plans I used show the draft gear and couplers mounted in the frame ends; I chose to mount the couplers under the frame in order to retain strength in the frame. This caused the car to appear to ride a bit too high. Then I cut and cemented in the frame cross-members. The bolsters are made from the 12 × 15 inch basswood stock. The first piece was cut to fit between the sides of the frame as shown in Fig. 1. The second piece was glued on and then tapered. This second piece would not have been necessary if I had mounted the coupler through the frame ends. Next I cut and glued in the coupler supports, "A" in Fig. 1, and mounted the couplers and trucks. You can adjust the coupler height by filing down the bolsters.

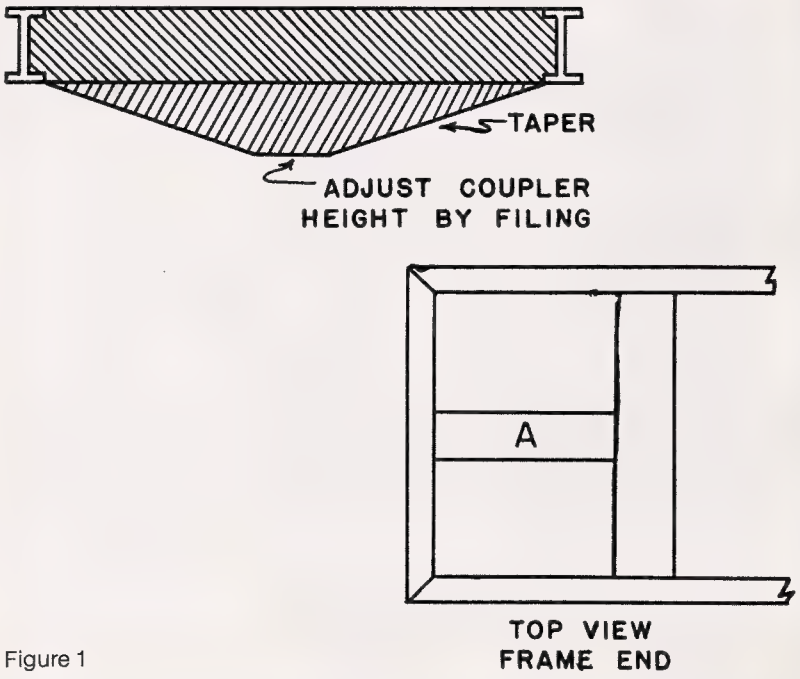
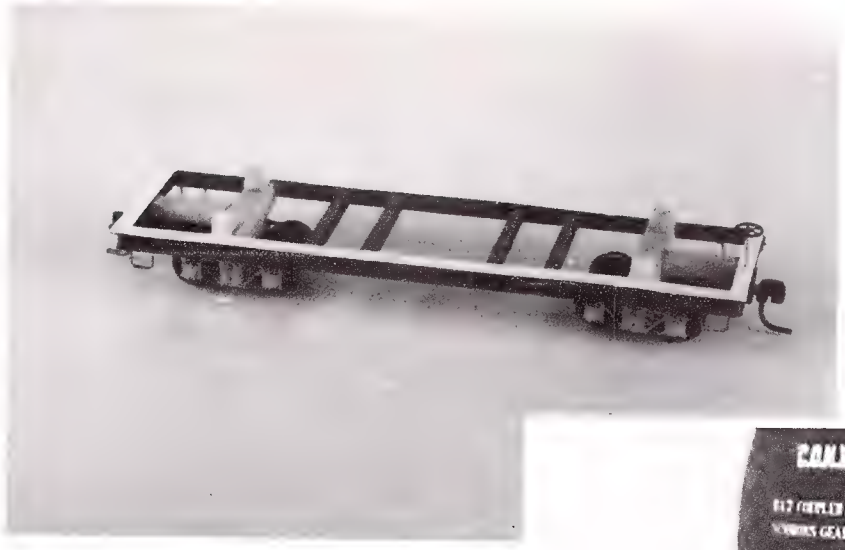


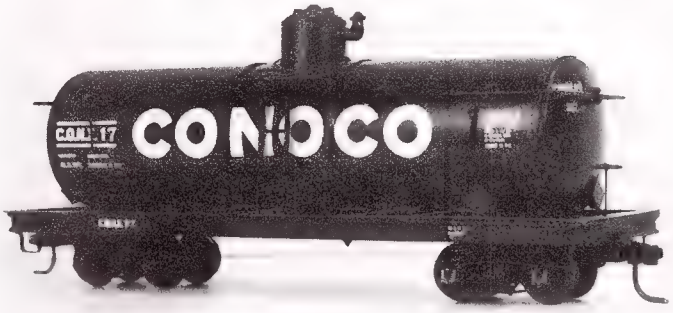
Figure 1



A completed underframe ready for a tank.

A close-up showing the end detail of CONOCO tank car #8. Notice how the coupler is mounted and the unusually high running board.

CONOCO tank car #8 completed and ready for service. It should be easy to build a string of these cars using the methods described in this article. You could also construct this car in HOn30 if that is your gauge.



CONOCO tank car #17 kit-bashed from a Roundhouse "Oldtime" HO tank car kit to HOn3.

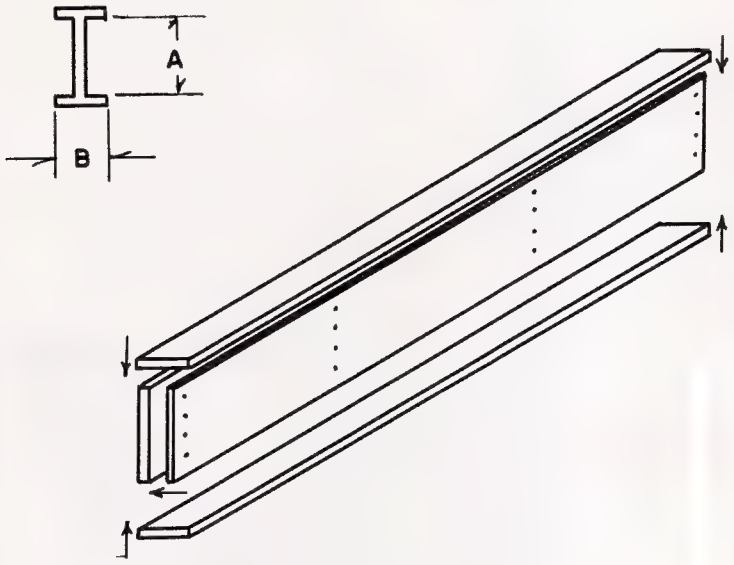


Figure 2

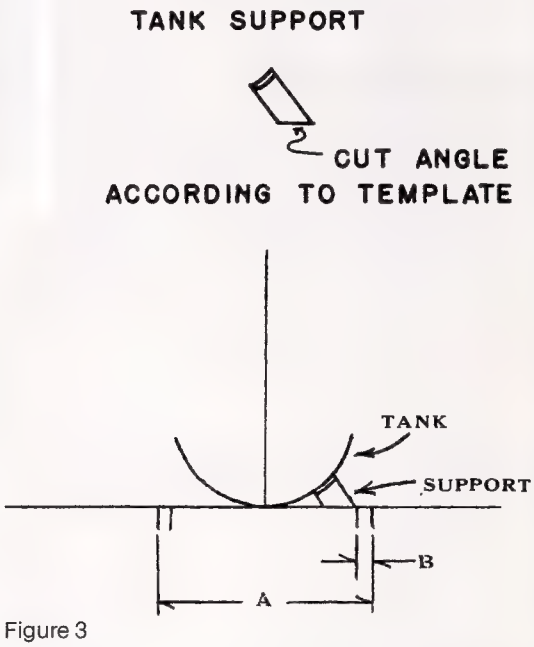


Figure 3

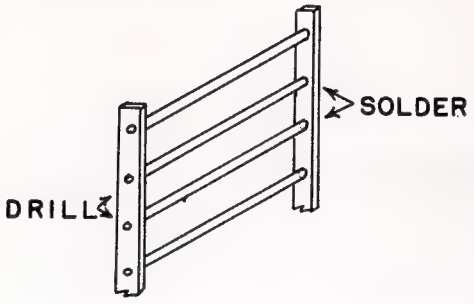


Figure 4

If you want rivet detail to show on the frame as I did in CONX #8, you can construct your own I beam. Cut .010 styrene sheet to height "A" in Fig. 2 and to the correct length. Emboss the rivet detail using an awl or similar tool. Laminate this piece to a thicker piece of styrene or stripwood cut to the same dimensions. Cut two pieces of .015 sheet styrene to width "B" and to the correct length and glue them on each edge of "A" to form the I beam. You can see the rivet detail in the photo of CONX #8.

Using .010 sheet styrene, I cut and glued on 8-inch wide strips for the "running boards" directly on top of the frame. Next I constructed the tank supports. You can use the template in Fig. 3 to cut 12 × 12 basswood stock for the supports. Allow room for .010 styrene "plate" between the tank and the support and file the tank side of the support as shown.

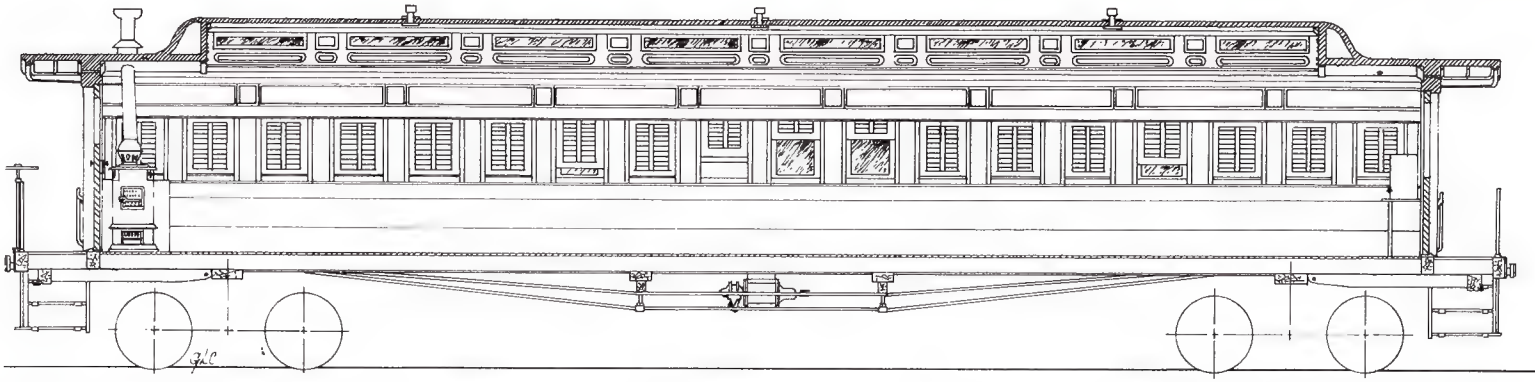
Next glue the tank supports to the frame on top of the bolsters and cut four "plates" from .010 styrene. I curled each one slightly to conform to the tank curvature. Place a very small amount of wood glue on the supports. Place a drop of plastic cement on the tank side of each plate. Put each plate in position on the supports. The wood glue will hold the plates in position temporarily while you position the tank on the plates. Make sure the tank is centered both horizontally and vertically. Immediately remove the tank and the plates will come with it due to the slow drying wood glue and the fast drying plastic cement.

Drill the frame and mount the grab irons. Make the stirrup steps from the .010 strap stock and mount them in place. Cut the brake wheel staff from .010 brass wire, mount it, and mount the brake wheel on the staff. The frame is now ready for the tank. The frame in the photo is shown with the archbar trucks in place.

Now is the time to take a close look at the tank. First, clean up the flashing on the castings and then drill the dome for the grab irons. Do not cement them in yet. Next, weight the car to your specifications. The frame in the kit may be cut down and used for this, or you may use any other suitable material, such as lead shot, for the weight. Determine the amount you need and epoxy it in the bottom of the tank interior. While the epoxy is setting, fill the 2 holes in the tank end designed for the tank mounted brake wheel.

I assembled the tank by gluing on the tank ends, the dome cover, the dome grab irons, the tank side grab irons, the dome platforms with grab irons, and the handrails. Then I filled in the remaining holes and cracks. Then I epoxied the tank assembly to the frame. The ladders need to be fitted and glued in place next. The ladders in the kit are adequate for any tank with raised running boards. Ladders will have to be made or purchased for those cars which do not have raised boards. Several manufacturers offer caboose ladders. If you are careful, one ladder is sufficient for each car. If a commercial ladder is not available locally, one may be constructed from the strap stock and wire as illustrated in Fig. 4. Construct the tank tie down straps from the brass strap stock and glue them in place.

Painting requires a word of caution. Plastic will tend to craze if painted directly with Floquil paints. Spray (or brush) a coat of Floquil Barrier on all plastic parts before you paint. Spray or brush your car with flat black add your lettering and you're done. Don't forget the "flammable liquids" signs on the sides and ends.



P end

Virginia & Truckee Railroad.

Coach Number 17 - circa 1925

Measured and Drawn by Gary Caviglia

April 1981

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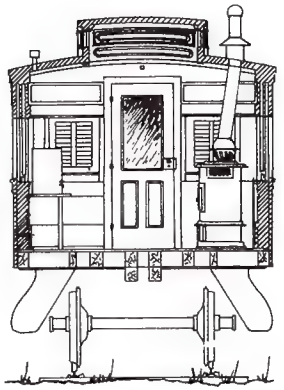

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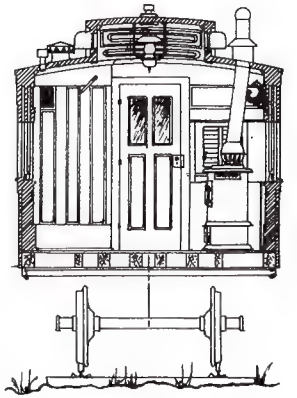
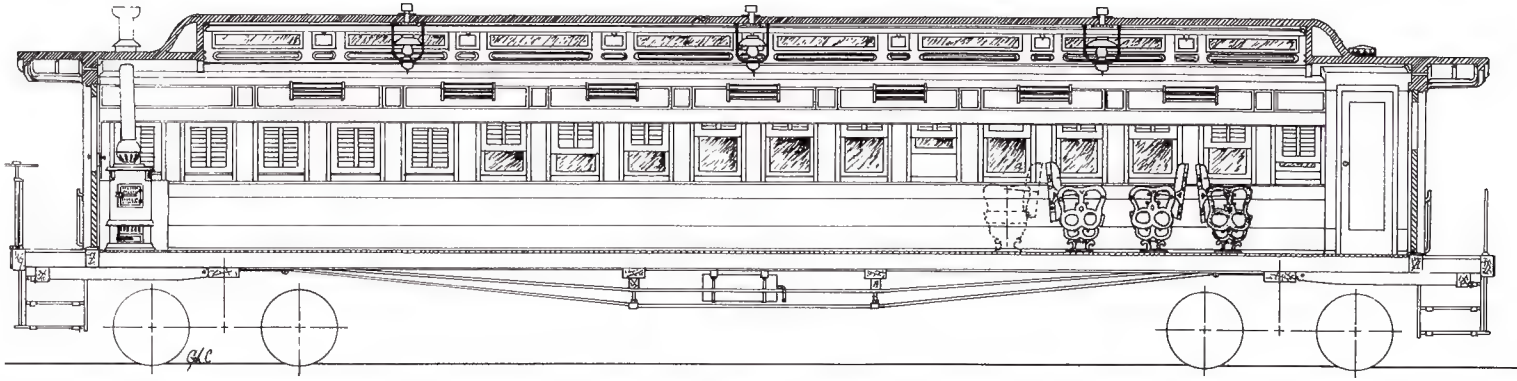


O end

Scale: 3.5mm = 1 foot



O end

Aging Corrugated Material by Etching

by Ken Hamilton
Photos by the author

I have always had a great deal of difficulty aging corrugated material to my satisfaction. I have been able to weather wood and color metal to my satisfaction, but realistically decayed corrugated metal eluded me until recently.

When I built a freelanced coaling tower for my HO/HOn3 R&K connecting railroad, I wanted the structure to look like an often-used heavily-weathered always-neglected coaling tower of the 1929-1935 depression era. The wood parts were all weathered, stained and assembled using board-by-board construction techniques. I didn't want to use shingles or tar paper on the roof, since an adjacent sandhouse employed both those materials. Colored corrugated metal just didn't seem right for the age of the structure. I wanted the tower to look like it had the "original" roof. I decided to use a technique I had come across several years ago. The basic idea was to etch the corrugated metal with PC board etchant to simulate rust and the ravages of time.

I gathered the necessary equipment which is shown in Fig. 1. A piece of cardboard on which to work, tweezers, Radio Shack Etchant, a shallow plastic tray, a bowl of water, Campbell HO Corrugated Roofing and scissors. You'll also need a stack of paper towels on which to lay the finished pieces.

I began by cutting the Campbell stock into scale (HO) 3 foot × 6 foot pieces. I poured about one-fourth inch of etchant into the tray. A plastic small-parts box is perfect for this tray.

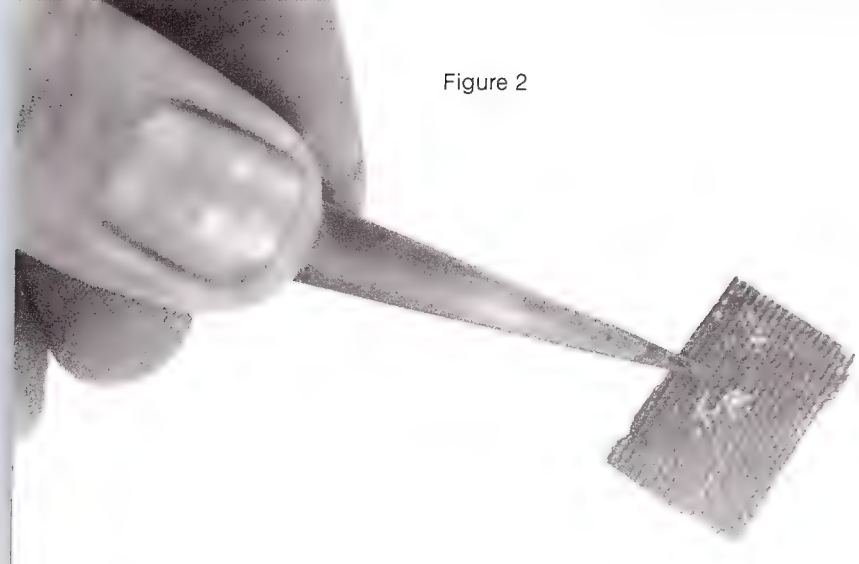
Etching the material was done in three different ways:

Process 1. I placed a piece of cut corrugated material in the etchant, and pushed it to the bottom of the tray with the tweezers. I left it there for a few seconds until it started to bubble, at which time it rose to the surface. After several seconds of rapid "cooking" I removed the metal with tweezers and rinsed it in the bowl of water. This process was repeated several times until the proper degree of decay was achieved (Fig. 2). The piece was then thoroughly and carefully rinsed and set aside on the paper towel to dry.

Process 2. The next approach was to lay the piece of metal on *top* of the solution (not pushing it to the bottom) causing it to etch from one side only. When the piece was "almost" sufficiently etched (you will develop the time to "almost" yourself), I submerged the piece totally into the solution to blacken the top, which until now had remained in its original silver color. This uneven etch created some fascinating patterns in the metal. Again, I rinsed the piece and set it aside to dry.

Figure 1

Figure 2



Process 3. Using a glass eye-dropper, I placed several small drops of etchant on five or six pieces of cut corrugated roofing stock which had been placed on a paper towel. These beads began etching small holes in the metal. After several minutes the pieces were etched one at a time following the procedure in Process 1. As each piece was submerged in turn, the others were allowed to etch longer under their drops of etchant. This created various sized holes in each piece. Fig. 3, a back-lighted view of some pieces, illustrates the subtle "see-through" rusting effects which were achieved.

When you first lay the etched pieces out to dry, they will all appear to be the same black color. However, various rust colors and black/gray speckled patterns will form at random as they dry. I have found that a minimal amount of finish color is needed to make the metal look realistic.

When totally dry, over-etched pieces make excellent scrap pile material. Fig. 4 shows my etched corrugated roof on the coaling tower.

One final consideration: care must be taken when using the etchant. It does splash a little when it's "cooking" and the fumes can be potent. Use this etchant in a well ventilated place, wear rubber gloves, don't get your nose too close to the tray, and keep the material away from your eyes.

Figure 3

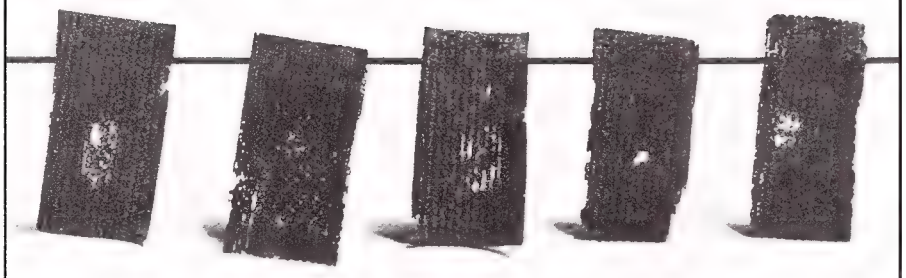
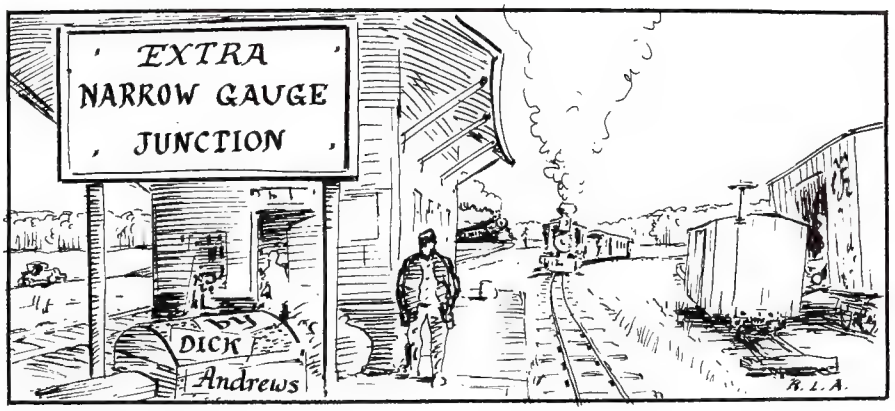


Figure 4



by Dick Andrews

An old saying goes, "Smart Indian builds small fire; sits close."

When we apply this thought to model railroading, it seems to suggest that we adopt a small scale for our project. Maybe "Nn3" or so. We generally think of scale in terms of millimeters or fractions of an inch to the foot. And an "n3" suggests a size smaller than standard gauge, and an "n2" a size smaller than those.

But when we come to think of it, "scale" applies to many things, and there is more than one way to build that small fire and get close to it. John Danvers (Jan '81 **GAZETTE**) has chosen a prototype whose full-sized scale is very small – a small gauge tram with little four-wheel cars. It is so small a prototype that when he modeled it to an inch to the foot, the layout does not really take up a great deal of room. And a modeling scale ratio that large brings you in close, while a small scale keeps you off at a distance.

I drive to work over a road that often reminds me of climbing over a mountain pass. The grade climbs up; the slopes on either hand close in; buildings are squeezed between the rock faces of the slopes and the road, and the now disappearing little brook. Finally there is a pitch up between rock shoulders and I am at the summit and on the downgrade again, with a new water shed. But all this happens within a quarter mile at the most; it is a mini-prototype for a mountain pass.

The short line railroad is a natural prototype for making a small fire and sitting close. In the last column I set out to suggest that our familiar three-foot gauge is by no means a "one size" item. There have been three-footers that ran rather long locomotives and some long cars (and also some two-footers that did). And these long locomotives and long cars might be made up into longish trains. However there were also very small locomotives on three-foot roads, early and late, and small cars. Perhaps this makes more sense if we consider all of the different ways that a narrow gauge line might develop or change.

General William Palmer's charming little 1870 Denver & Rio Grande road was built simply to cut building costs in half. This was important because a new rail line had to earn enough money to pay off the cost of building it, and if it didn't, it went bankrupt. By using a roadbed three-fifths standard width, and a rail half the weight (and thus cost) of standard rail at the time, General Palmer had cut the two major costs of railroad construction in half. He did it by narrow gauge and by using very light locomotives – little 17 ton 2-6-0's and others of that size. This 1870 pattern of the D&RG was widely copied all over the USA, and also Alaska and Hawaii. The D&RG at that time was headed south across the prairies for Mexico, and had not become a mountain line.

It is hard to believe today that narrow gauges were built for miles across Illinois, Indiana, Ohio and other states. What happened to them all?

One thing that happened to some of them was that they merely disappeared, having not proved able to keep going even on so low an overhead of debt service. So lightly were many of these graded that it is hard today to find any mark on the earth left by them, unless one knows exactly where to look. Other narrow gauge lines simply were standard gauged, and as standard lines, were often very light and used small locomotives. Particularly in the more open states that had many lines crisscrossing them in a full network, a narrow gauge might wind up with standard gauge at either end, and thus miss any share of bridge traffic due to the break in gauge. However, even where a narrow gauge was a feeder, folks along the line might clamor for standard gauge after hearing a few jokes at their expense gotten off by outsiders.

However, there were narrow gauges that did survive as narrow gauge and some of these went on until World War II or even a bit after. If one can make any sort of rule about these, it might be this: the longer the road, the more likely it was that Baldwin salesmen had sold the management on using heavier engines and if needed, heavier rail to carry them.

By 1910 or so, it wasn't quite so economical to run a hundred mile pike with very light locomotives, double or triple-headed quite often, to get paying freight over the road. Maybe Baldwin people showed the short line managements how a back-truck Prairie or Mike, with its firebox behind the drivers and a bigger boiler thus made possible, was a small version of the heavy main line power appearing on many big system roads. As I noted, *not* seeming to be quaint could be a sales point. So locomotives arrived that – run singly with one crew – could move the tonnage that used to require double-heading or even triple-heading. Less frantic choo-chooing meant less "line occupancy" (fancy lingo always appeals) and that meant fewer on-line operating personnel, and so on. It takes high freight revenues and low enginemen salaries to make money on such an operation as a triple-headed, three-car freight once photographed on the "Grande" in the mountains back around 1900.

However, the other side of the coin was the short short line. On a road one hundred miles long, if a locomotive goes from one end to the other, it will have run two hundred miles before it's back to the first terminus again. It won't easily do that in a day, and we find that the Sumpter Valley in its last period would run a 2-6-6-2 down ninety miles to the far end with forty empty flats one day, and haul out forty loads of lumber the next. That's still only twenty a day.

Let's look at a short short line moving freight. One that comes to mind is the 22-inch gauge tram of the Homestake Mine Company at Lead, South Dakota, that ran with little four-wheel cars and a quaint dinky steamer probably smaller than many autos today. In the course of some years on its short run to and fro it literally moved a mountain. Today they can show you where the mountain was. This mountain was moved to the mill in tiny cars by a tiny locomotive running on a short twenty-two inch gauge track.

One of the most profitable roads in Maine through its life (it paid 6 percent dividends steadily) was the Kennebec Cen-

tral. The KC was often called upon to move crowds of people who came out to the National Soldiers' Home at Togus to hear the band concerts on summer weekends. It also was called upon to move actual shiploads of coal into the Home's power plant. The ships would unload the coal direct into KC cars at the other end down on the bank of the Kennebec River. This sounds like a freight volume for a heavy modern main line road, and it would have been – if the KC had been 500 miles long – or even 50. But it was just five! So the KC did it all with a pair of tiny Forney locomotives, a few passenger cars, and a string of low-sides. Trains shuttled back and forth until the crowds had been moved, or the coal shipment hauled in. Any one car might be loaded and unloaded two or more times a day.

The Monson RR was another such line in Maine. It was a six miler and with its track gauge of two feet, it was naturally called the "Two by Six". It also ran small Forneys and its freight cars were simple and only 24 feet long. Its one combine was a bit longer. The Monson outlasted all other two-footers in Maine in public RR work. One little locomotive kept hot all day on very little coal, and the three-man train crew did all the jobs. However the little three-foot gauge Lawndale down in South Carolina was just as short and simple and lasted about as long. These little roads, when their 1880 era kettles wore out around 1920, simply ordered small same-size replacements from Porter or Vulcan. It would seem that they weren't marks for Baldwin salesmen.

Of course all this applies just as well to a short short line in standard gauge, and some quite small kettles were run on some of them. Linwood Moody, author of "The Maine Two Footers", was agent at Brooks on the Belfast & Moosehead Lake RR in Maine for some years. This is a standard gauge road, serving the town of Belfast over a 33 mile run up from Burnham Junction, where it connects with Maine Central. Lin used to get out a delightful little mini-magazine called **WAYCAR** on the doings of the B&ML month by month, and he has kindly given us permission to reprint some of his talleys of freight loads run in and out over the B&ML each month.

From the **WAYCAR** for August, 1949, here is the summary of business for July 1949:

Inbound Cars (263)

169 Feed	2 Machinery
14 Gasoline	2 Soybean Oil
11 Cans	2 Automobiles
10 Tar	2 Fibreboard Boxes
9 Asphalt	2 Wallboard
5 Poultry Crates	2 Shavings
5 Corn	2 Crushed Stone
5 Fuel Oil	2 Lumber
4 Shingles	1 Egg Cases
4 Coal	1Ties
3 Poultry Batteries	1 Bottles
2 Refined Oil	1 Can Covers
2 Salt	

Outbound Cars (125)

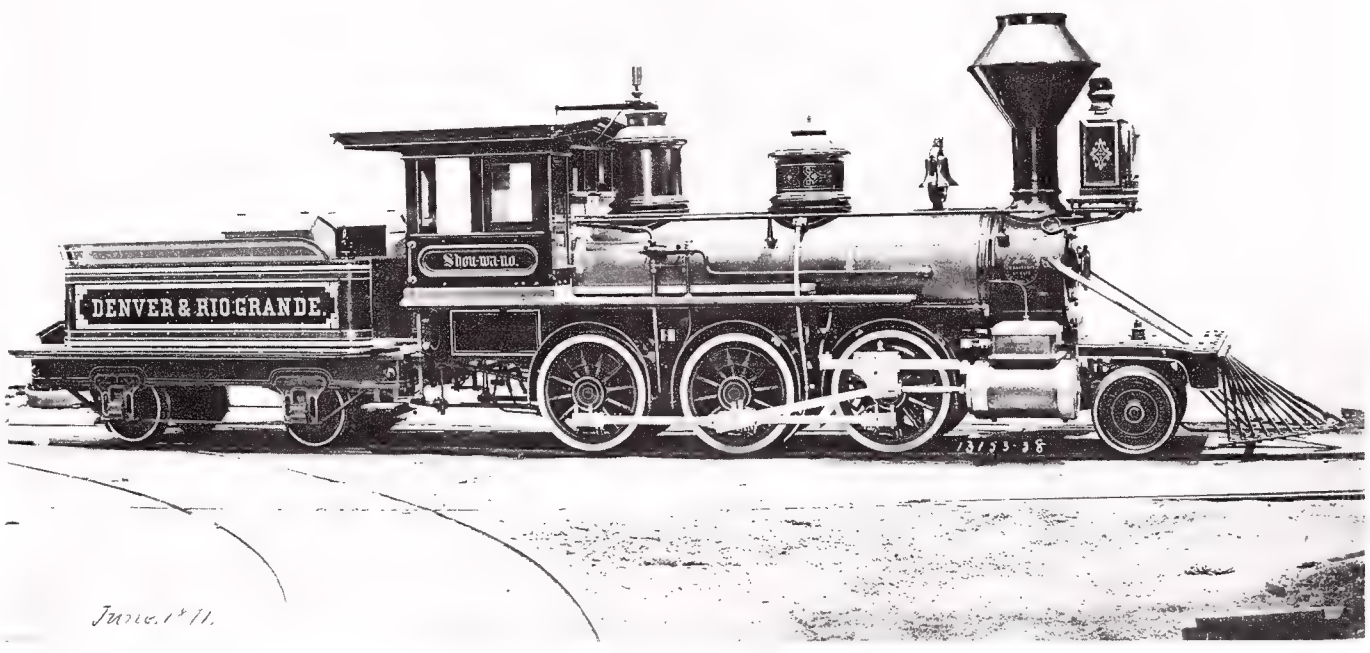
48 Pulpwood	2 Laths
31 Milk	2 Crating
15 Sardines	2 Sand
10 Lumber	1 Crushed Stone
7 Frames	1 Cedar Posts
6 Canned Vegetables	

This is what came in and out over a Maine five-footer (minus 3½ inches) over one month. If the B&ML had been narrow gauge, each carload in or out would have run in two or three narrow gauge cars. That would keep a little road busy. So far as the break-in-gauge is concerned, as late as 1940 the wage in Maine for a full nine hour day was not much. (I drew $3 on a corn farm for such a day.) A few men working right along could move a lot of freight "acrost" in a nine hour day. On a hot July day the only "coffee break" might be a few moments stop around eleven o'clock for a cup of water out of a pail brought into the field . . . The cost of transferring freight at the junctions on our Maine narrow gauges was never much stacked against the cost of regauging an entire line.

This is the background for my On2 pike, the Waterford & Crooked River Railway. I had been O scaling it about in our largish cellar, when repairs to the ice boat this winter indicated that the model railway might be happier upstairs in a small bedroom. In 28 feet × 20 feet one is not exactly pressed for room, but 13 feet × 10 feet is quite another picture. My two yards, one at either end of the pike are modules that seemed small enough in the cellar, and the ends didn't seem too close together. Well, how does it fit in the smaller space?

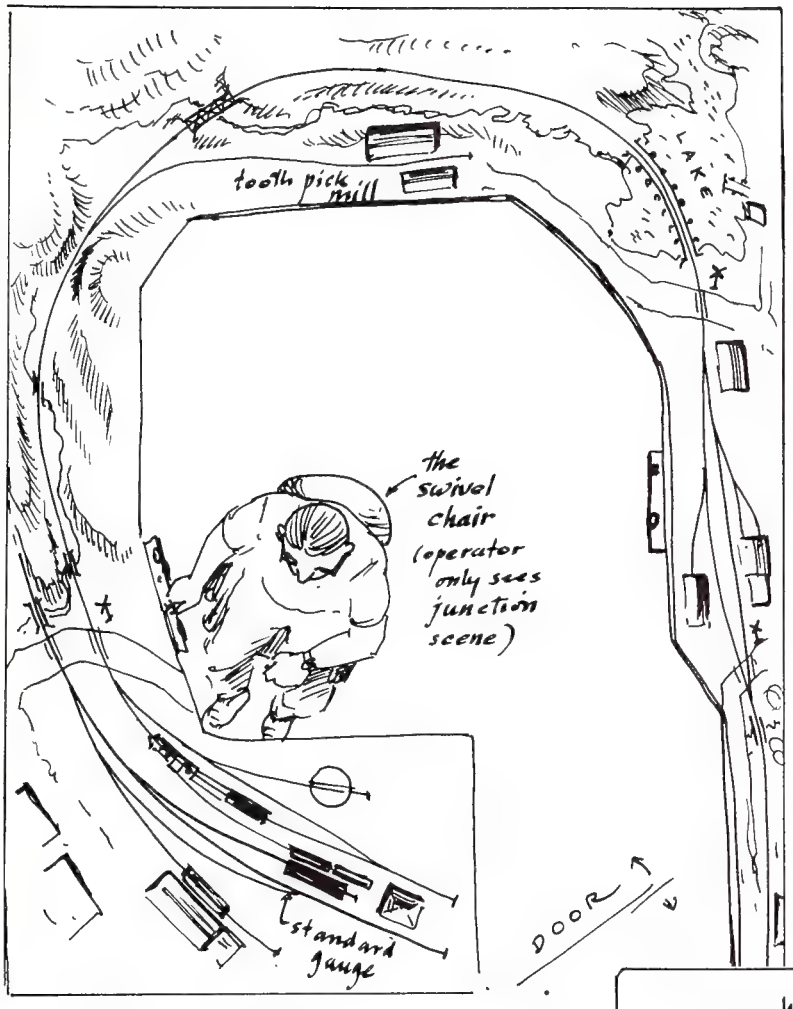
First of all, my concept is that this is a short short line. Small 0-4-4-T's can handle the traffic. My cars are mostly on the Monson pattern – short. So what I am running – although the scale is O – isn't really any bigger unit for unit than a standard gauge terminal line with a small switcher – in HO. My yard turntables are

The Shou-wa-no was a fine example of a small engine used in the early days of the narrow gauge. *Photo, H. L. Broadbelt collection.*



A very early view of the Monson station taken in Monson, Maine. The first engine house is just behind the last car on the train. Notice the road's only passenger car sticking out of the car shed in the right background. Also notice that old vintage automobile at the far left of the picture. *Photo, collection of L. B. Walker.*

Standing on the Bridgton station looking towards the "Junction". The track gang is having their "nooning". Their Chevy railcar and flat trailer are at hand. The Reo bus trailer shows on the freight house siding. At the right is the car shop with its unusual sheathed "flying buttresses". Beyond is the shop. *Photo, collection of Dick Andrews.*



five inches long; the engine house stalls are seven.

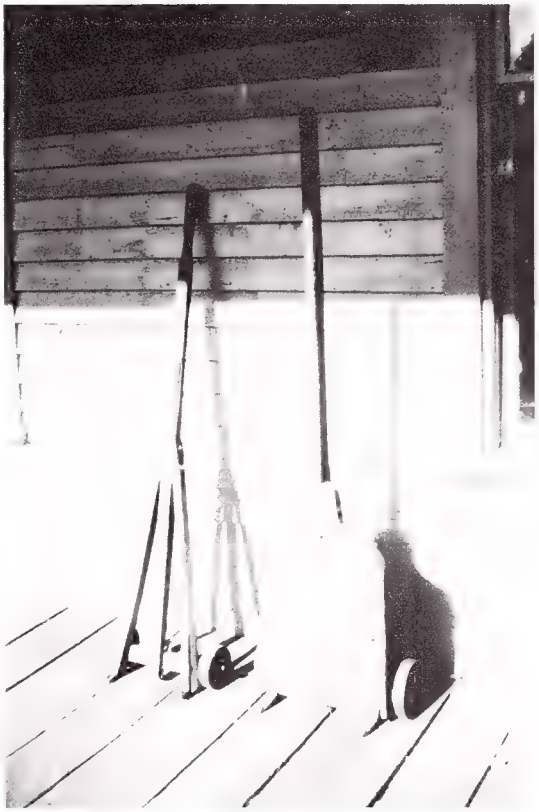
One time around this room isn't very far, but trains have to go twice around it to get back to where they started out from, because the track plan is not a loop. So when they get to one end, they have to turn around, switch, and then go back.

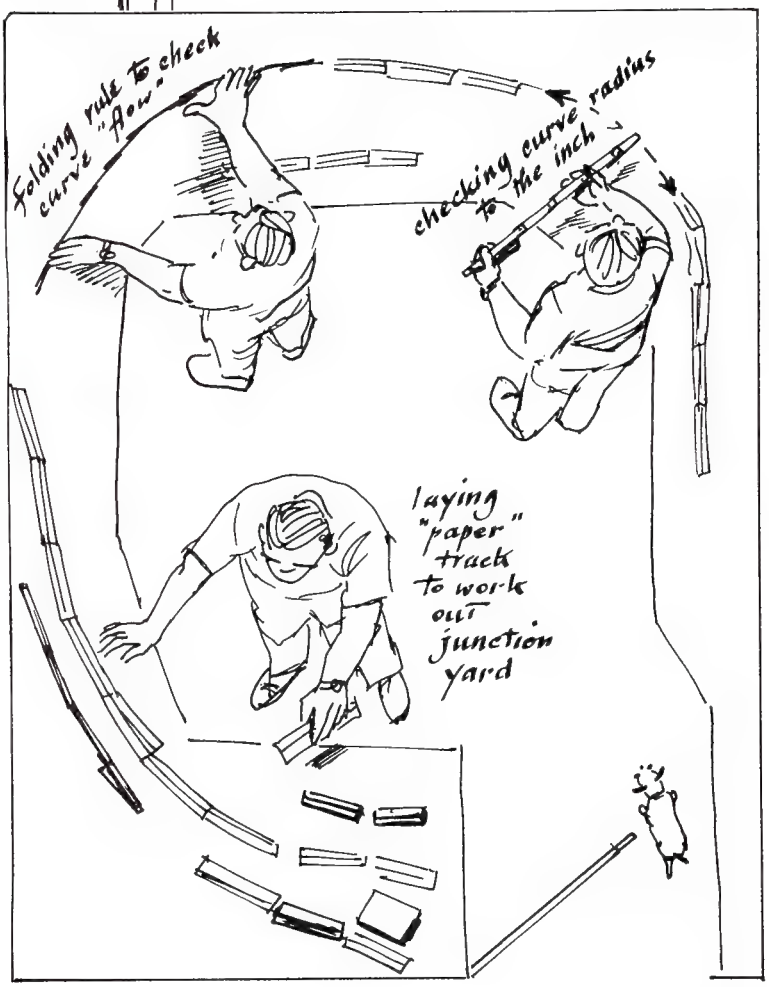
Standing in the doorway looking into the room, it seems all very close together but when one is in the room, with the track proceeding around you along the walls – you see only some of it just as neatly as if the rest were in another room – or miles away. It is a swivelchair pike for sure.

I've made many trials with provisional arrangements. It's hard to design a good small pike – as it is to do a good small boat or car. A great help is to use a few old car bodies set about on lengths of paper track – just take a strip of paper the width of your roadbed and draw rails to gauge on it. Set buildings or even small boxes around and the "possible" begins to emerge. To check track alignment and curves, a folding carpenter's rule is a very handy gadget. Gradually that small fire begins to warm you.

Dick

These home made platform baggage handlers were photographed at the Bridgton station on the Bridgton & Harrison Railway. *Photo, collection of Dick Andrews.*





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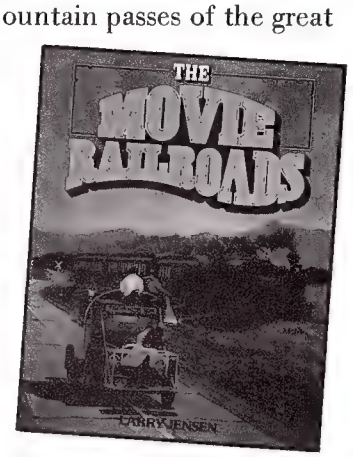

Rail and film historian Larry Jensen spent years of research, interviewed scores of actors, directors, technicians and railroaders to compile the data and photos for this unique book. It includes movie lists, casts, rail equipment rosters, location maps, promotional posters and over 350 action-packed photos.

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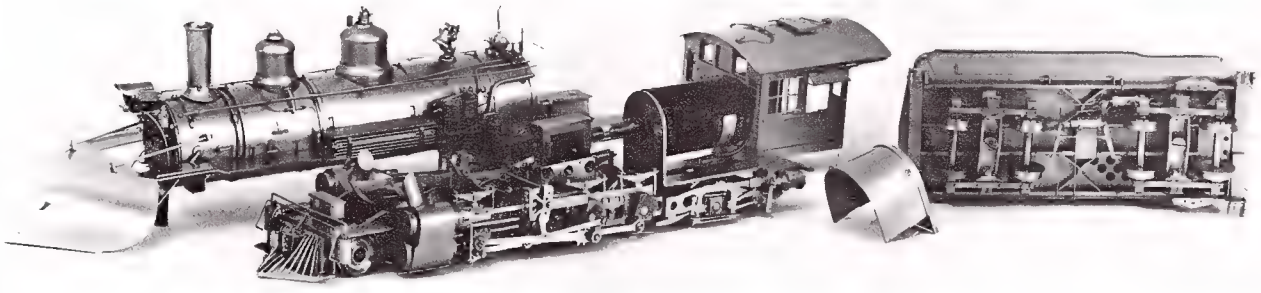

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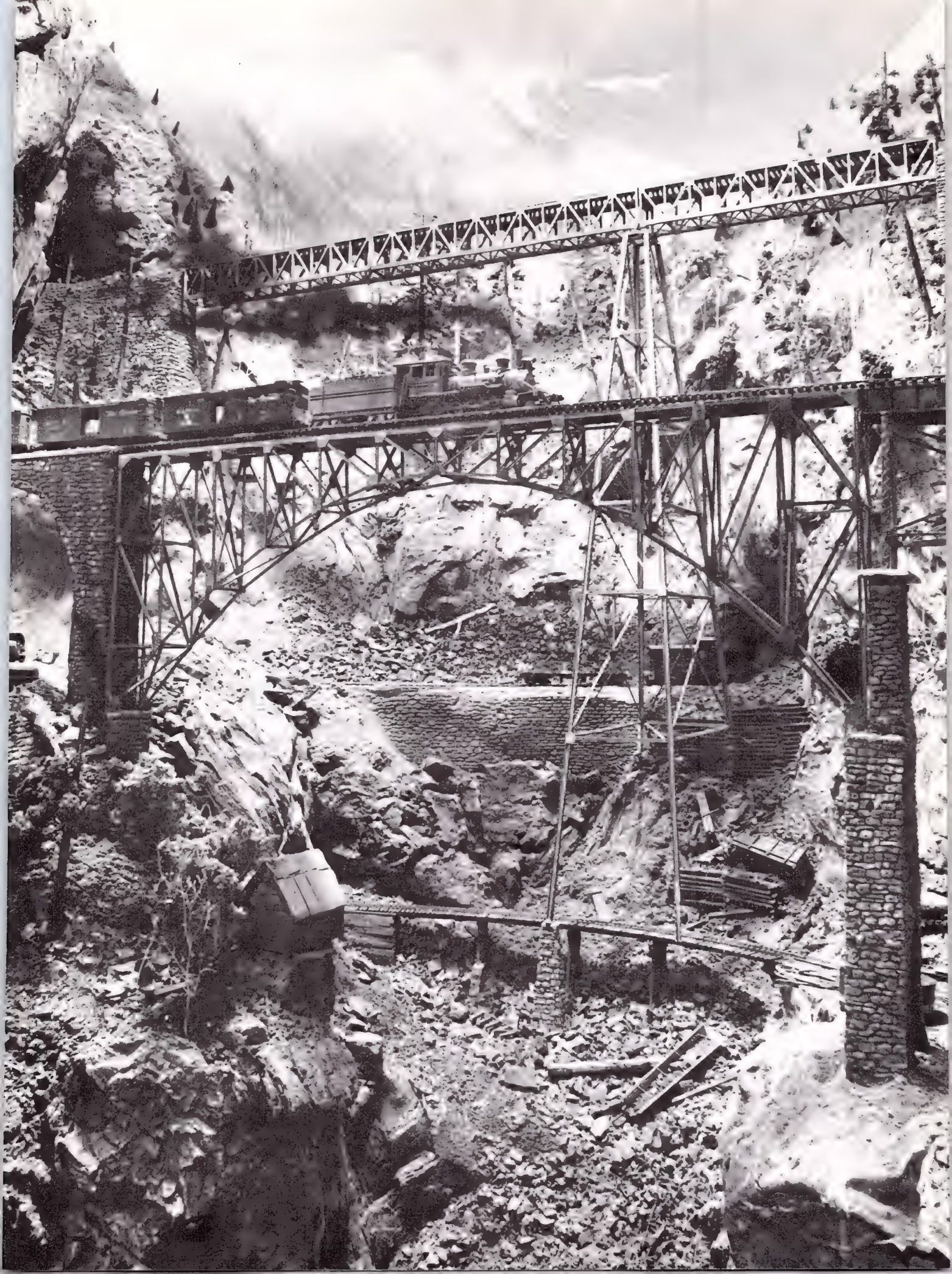
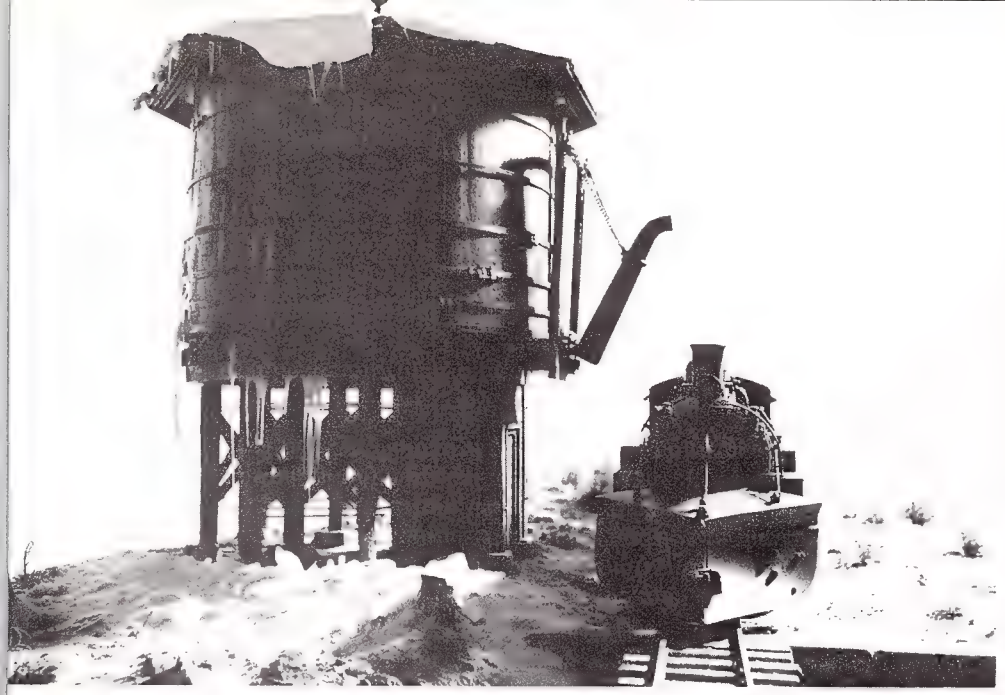
GAZETTE GALLERY

Edited by Gene Deimling

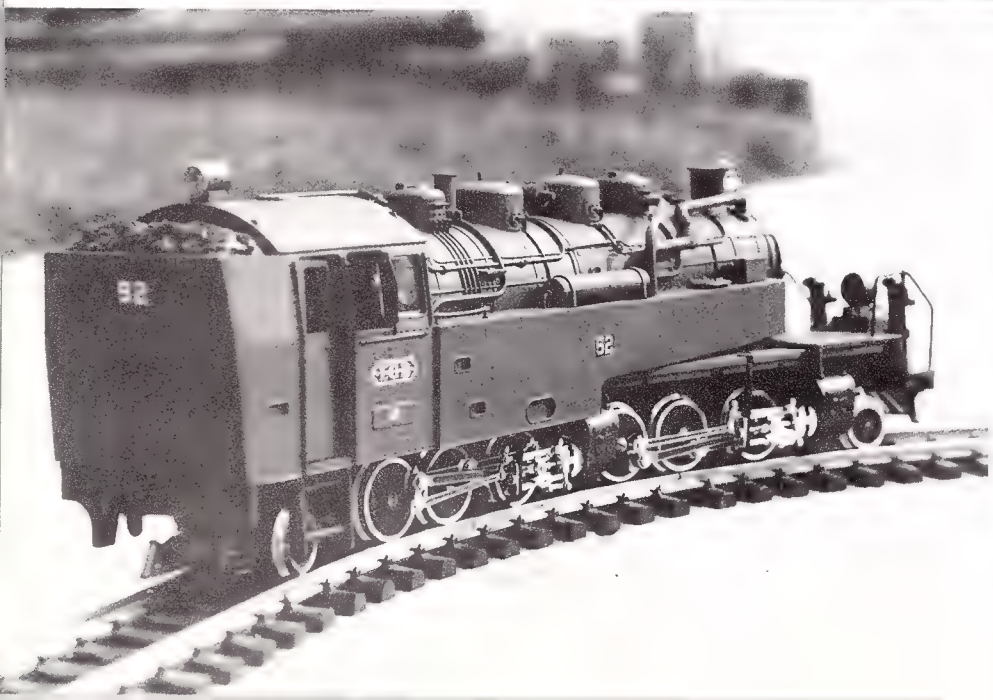
Around the turn-of-the-century, Winnipeg, Manitoba's Princess Street looked like this photo. Each one of the buildings in this scene was served by a railroad spur located in the rear of the street. The **GAZETTE** will be running some more material on the early years of Winnipeg in future issues. The material is being provided by the NMRA group who will host the 1983 National Convention. Plans for these and other buildings will be available to members attending the 1983 convention. *Photo from the Manitoba Archives.*

Right: This breathtaking scene is on Malcolm Furlow's HOn3 Denver & Rio Chama Western model railroad. The train is rumbling across the high steel arch bridge which spans Silver Canyon. Malcolm mentioned in his letter that the deck truss bridge is not quite completed so hold your praise of the amazing feat of only one bridge pier supporting that massive tower. *Photo by Malcolm Furlow.*





These photographs show the work of Hideki Abe who is one of our Japanese readers. His HOn3 diorama is titled "Early Spring" and is loaded with examples of some very realistic modeling techniques. Hideki used a product called Snow White manufactured by Joe Works of Japan to make the snow. He also used this material mixed with casting resin to create the foaming effect in the stream. The icicles hanging from the roof of the water tank were made from fiber optic rod. The icicles attached to the water tank were made from glass wool strands coated with resin. These techniques have produced one of the most realistic winter effects that this editor has ever seen. The locomotive is a Westside K-37 and the water tank is a Durango Press kit. *Photo by Shozo Inoue.*



This interesting narrow gauge articulated was built from two LGB 2-6-2 locomotives. Al Lentz, President of the LGB Model Railroad Club, patterned his locomotive after theMallets built by the Baldwin Locomotive Works for the Uintah Railroad of Utah. *Photo by Al Lentz.*

When I saw these photos from Walter Olvesky they provoked some pleasant memories of my childhood and this shortline which used to run near my home. The Rahway Valley Railroad interchanged with a number of class 1 roads and served quite a few industries. The headquarters and engine facilities were located in Kenilworth, New Jersey. Engine #13 started life on the Lehigh and New England and was sold to the Rahway Valley before World War II. *Photo from the collection of Walter Olevsky.*

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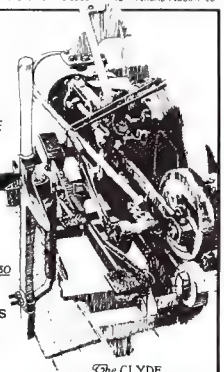
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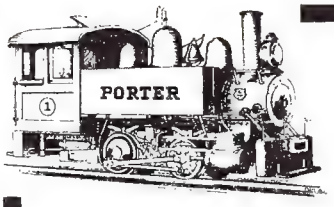

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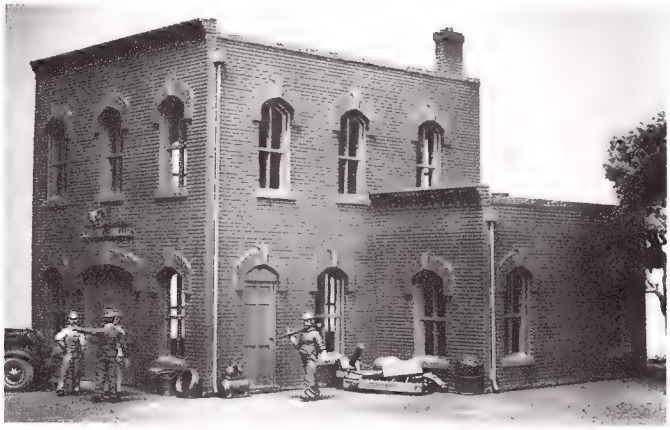

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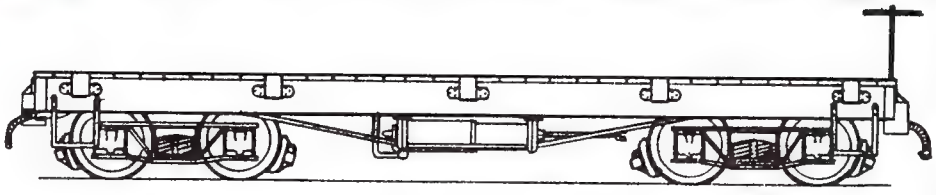

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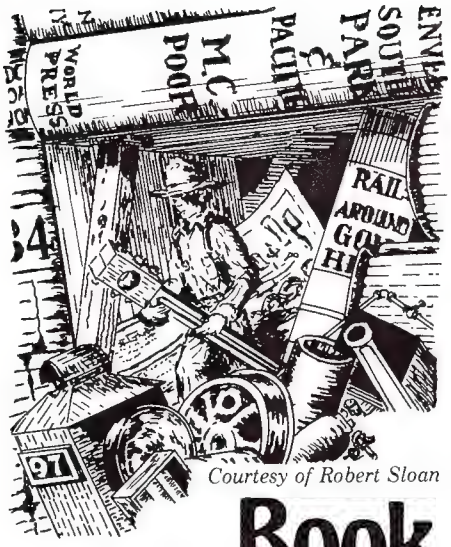


Courtesy of Robert Sloan

Book Reviews

Scale Model Trucking by Gary Nash & Mic Greenberg, The Scale Model Weathering Company, P.O. Box 1310, Pacifica, CA 94044, 1980. Softcover, illus., 60 pages, $7.50 plus .75 postage and packing.

Nash and Greenberg's third volume in their excellent series on the art of scratch-building is devoted to scratch-building vintage trucks. The authors have coined the term "augmentables" – meaning parts found on other models or objects which can be used for purposes other than originally intended. For example, using an airplane engine cowl as the main part of a cement mixer. The first part of *Scale Model Trucking* discusses looking for and using augmentables. There are several photographs showing trucks with the augmentables labeled on the photos by call-outs. The second part of the book describes in detail how to build several beautiful vintage trucks. The text contains many close-up and detailed photos showing step by step construction details. The last section of the book consists of a gallery of full page photographs of 12 different vintage vehicles. A photo pack is available consisting of individual color prints of the vehicles shown in the book. The pack sells for $4.50 plus $.25 for postage and handling. This book is an excellent source of information on vintage trucks. It contains many valuable techniques which will improve your scratch-building whether you are building vehicles, rolling stock, or structures. Greenberg and Nash have proven themselves to be masters at developing new and innovative scratch-building techniques. You do need to be aware that some of the augmentables mentioned in this book are either very hard to get or are no longer available. It is very hard to find some of the Renwall 1:48 vintage vehicles which form the basis for some of the trucks. Also be aware that buying all the various kits to produce some of these trucks may cost quite a bit. Once you have a tank or jeep kit, however, you of course have many additional augmentables for future projects. I urge you to look into this new book if you are interested in either vintage vehicles or scratch-building. When your eyes are open to the possibility you can find "augmentables" in many places. *Bob Brown.*

Railroads of Arizona, Vol. 1 and Vol. 2 by David F. Myrick, Howell-North Books, (Vol. 1 1975, Vol. 2, 1980), Howell-North Books Publishers, 11175 Flintkote Ave., Suite C, San Diego, CA 92121. Hardcover, illus., Vol. 1, 480 pages, $25.00, Vol. 2, 452 pages, $30.00.

I am sure many of you realize that Howell-North Books has been taken over by new owners. The new Howell-North Publishers are maintaining the fine line of books previously published by this company. In 1975 Howell-North published Volume 1 of David Myrick's epic *Railroads of Arizona.* Howell-North has just released Volume 2 of this series. Volume 1 covered the Southern Pacific's entry into Arizona and its construction on to Tucson. Volume 2 discusses the railroads around the Salt River Valley and the area near the Gila River. The proposed lines to connect the Durango, Colorado and Arizona copper smelters are also described. The book is full of photos and route maps of the lines described. It covers such well known railroads as the Magma Arizona and the Copper Creek Railroad. Many of the lines described were never built and should provide the free-lance model railroader with some interesting ideas. Both volumes have the same format as Myrick's excellent *Railroads of Nevada* published several years ago and still available from Howell-North. *Railroads of Arizona* is good reading for the western rail-fan. It covers railroading under harsh conditions and describes the people who overcame the great hazards to build rail empires. *Bob Brown.*

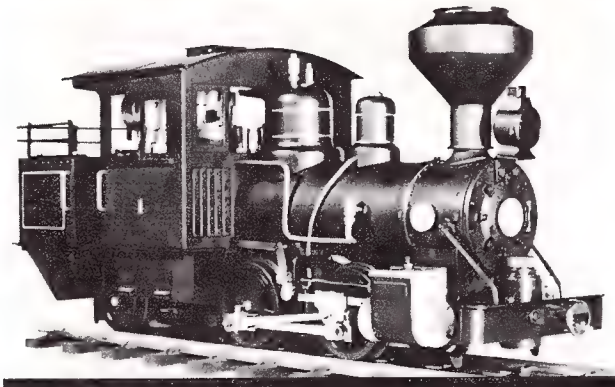
Model Railroad Scratchbuilding by Wayne E. & Mary Cay Wesolowski, TAB Books Inc., 1981, Blue Ridge Summit, PA, 17214. Softbound, illus., 230 pages, $9.95.

I am sure most of you are familiar with the fine scratch-building articles by Wayne Wesolowski which have appeared in the pages of the **RAILROAD MODEL CRAFTSMAN.** Wayne also did the excellent plans of the Quincy mine hoist in the March/April 1981 **GAZETTE**. Wayne is an excellent and innovative model builder. His approach to scratch-building and many of his techniques are clearly presented in his new book. The book starts with several introductory chapters which discuss attitudes, tools, and some basic tips to get you started. Wayne then describes his techniques in working with wood. He then describes a simple wooden bridge and an icehouse so you can apply his methods. Then he describes working with paper and goes on to show you how to use paper in constructing a storage shed and section house. He ends his book by discussing working with plaster, making patterns for plaster molds, and casting plaster parts such as windows and other details. He then tells you how to cast a highway bridge and some chimneys. There is a glossary of terms in the back of the book and an index. The book is well illustrated with black and white photographs and drawings. There is a color section which illustrates the various models mentioned and described in the text. Many of these models have already appeared in the pages of the **RMC** but it is great to have all the techniques in one book. The articles are not the same ones that appeared in **RMC**, just the models. I found many new techniques described in this excellent book. The plaster casting methods alone are worth the price. Don't miss this book if you want to improve your scratch-building techniques or if you want to enter the satisfying world of scratch-building. *Bob Brown.*

North American Railroad Stations and **Classic American Railroad Stations** both by Julian Cavalier, A. S. Barnes & Co., 1980. 11175 Flintkote Ave., Suite C, San Diego, CA 92121. Hardbound, illustrated, 215 pages and 120 pages, respectively, $17.50 each.

These two books are gold mines of information on passenger stations. *North American Railroad Stations* has an alphabetical listing of many of the stations of Canada and America. The Canadian stations are listed by community and the U.S. stations are arranged by railroad. Each station is shown listed in a photograph with a detailed caption. Several of the buildings are shown in color.

Classic American Railroad Stations is a more detailed treatment of the American railroad station. This book lists 40 stations. Each station has several photographs and a detailed history. One of the buildings described is the Southern Pacific's Menlo Park station. This structure still exists only about 10 miles from the **GAZETTE** offices. The station is shown in five photographs including some very early views plus about two pages of text. The text includes historical and architectural information. If you are interested in passenger stations and their importance in the history of railroads look into each of these books. *Bob Brown.*



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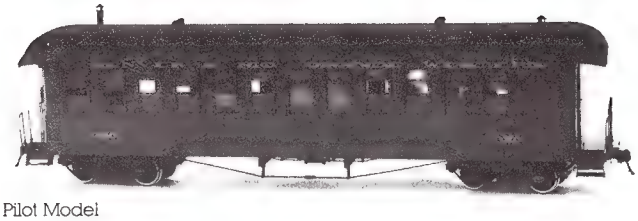

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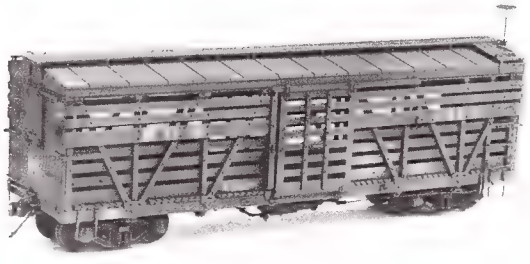

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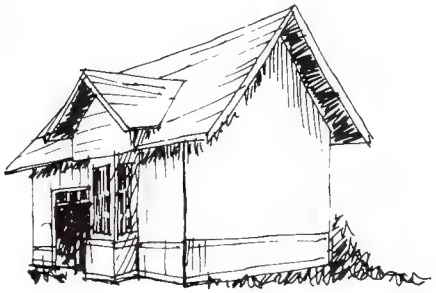

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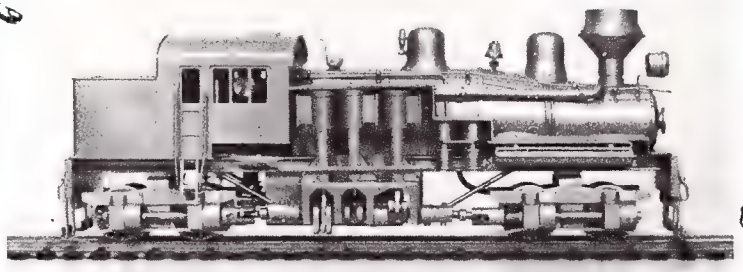

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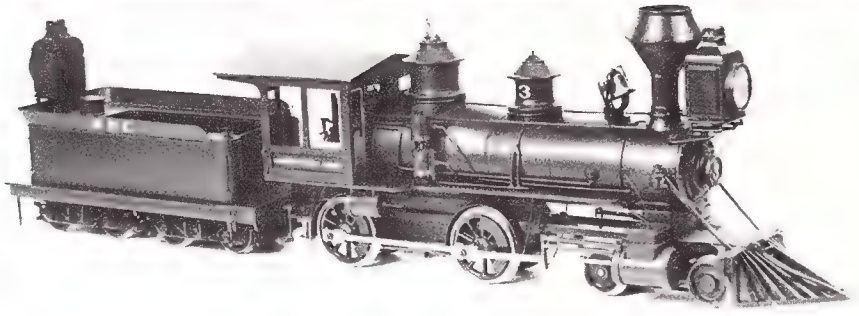

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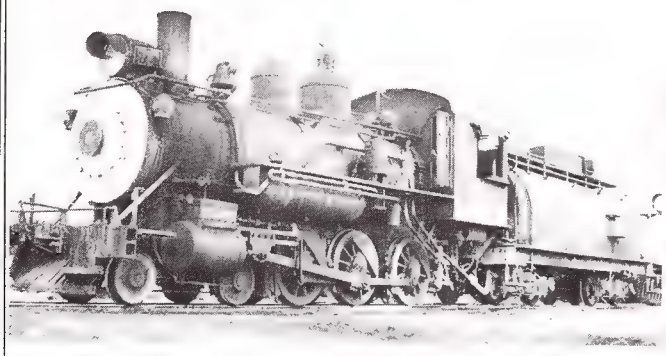

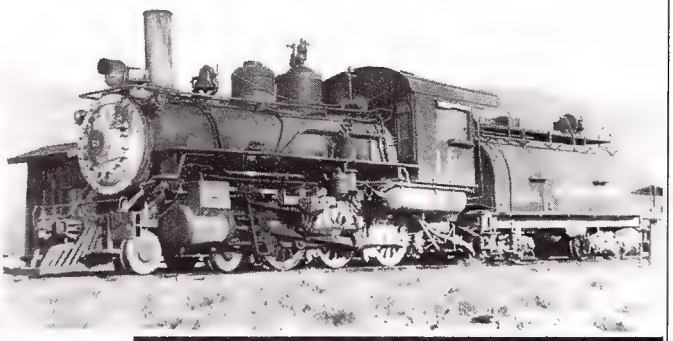

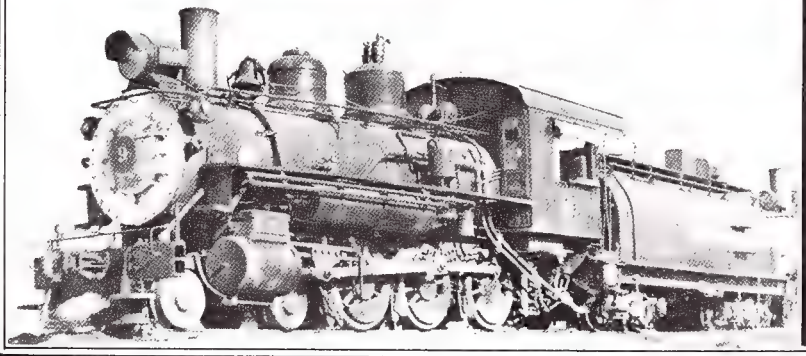

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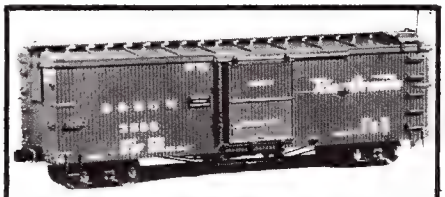

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1st NATIONAL NARROW GAUGE CONVENTION

OCTOBER 7-10, 1981
ST. LOUIS, MISSOURI

HOLIDAY INN CLAYTON PLAZA
7730 Bonhomme, St. Louis, MO 63105

Guest of honor and speaker will be
Mr. Robert W. Richardson, Executive Director of the
Colorado Historical Foundation, Inc. and
the Colorado Railroad Museum.

TENTATIVE SCHEDULE

Wednesday: Start 6:00 p.m. Registration, Narrow Gauge movies & slides, bull sessions.

Thursday & Friday: Clinics, manufacturers displays, model contest, swap tables, layout tours, movies and slides. Museum of Transport.

Saturday: Clinics, manufacturers displays, model contest, Live Auction, Award Ceremony and Guest Speaker.

Layout tour to include layouts in Nn3, TTn3, Hon3, Sn3, and On3 plus portable layouts at the convention hotel.

Contest categories: Motive Power ■ Freight Cars Passenger Cars ■ Cabooses ■ Maintenance of Way Structures ■ and Dioramas

MANUFACTURERS

At the time this ad was prepared the following manufacturers had indicated they would attend the convention:

Tomalco
Grandt Line
Rio Grande Models
Don Winter
Narrow Gauge and Shortline Gazette
The Crossing Gate
S Gaugian
Alamosa Car Shops
San Juan Engineering
Coronado Scale Models
Paul Rayner Scale Models
Ron's Art Graphics
Kelley Morris
Robert Sloan
Rail Craft
Clear Creek Models
P.B.L.
Power Systems Inc.
Sandy River Car Shops

CLINICS

Bob Brown	Clutter
Moen3 Mechling	Converting MDC coaches and cars to narrow gauge
Bill Becker	SP narrow gauge
Eric Bracher	Narrow gauge work equipment
Gilbert Hulin	Central and North American narrow gauge today
Wayne Weiss	Fine tuning locomotives
Robert Sloan and	Appropriate geologic scenery
Dick Andrews and	Gauge and scale conversions of locomotives
	Two Foot
	Getting started in narrow gauge on a limited budget
Russ Larson	Command Control Systems
Peter Barney	Maine Two Foot rolling stock
George Konrad	Narrow gauge and the mining industry
Len Madsen	Modeling Techniques
Kelly Morris	Details, Details
Dave Newcomb	Your personal time machine

Advanced Registration: $25.00 After Sept. 15: $30.00

Special Door Prize Drawing for advance registrants.

Registration – $25.00 with a $2.00 refund to each registrant who brings a model for the model contest/display. Refund to be paid at the time the model is entered in the contest/display. Print your name as you wish it to appear on your name tag, indicate address you wish confirmation sent to. Send check or money order to:

1st National Narrow Gauge Convention
c/o John Kalin
5011 Barbagallo Drive
St. Louis, MO 63129

We are inviting ALL Narrow Gauge Groups to hold their Fall 1981 meeting in conjunction with the 1st National Narrow Gauge Convention in St. Louis MO.

Modular and portable layouts welcome, please let us know your space requirements.

Contact hotel direct, use of 800 number or going through another Holiday Inn will result in your being told the hotel is sold out for the dates of the convention. Also be sure to state you are attending the National Narrow Gauge Convention to get a reservation and the convention rate.

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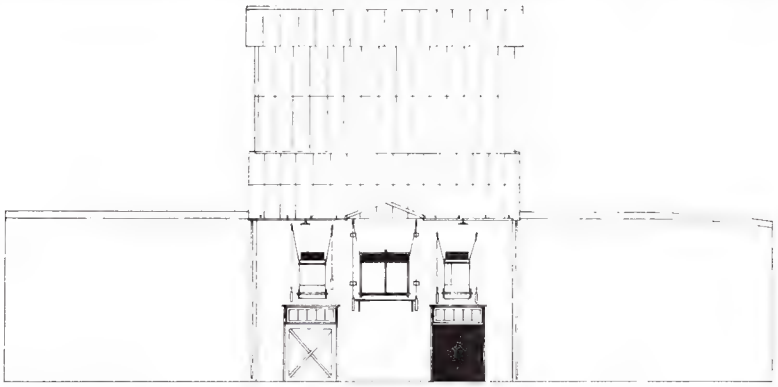

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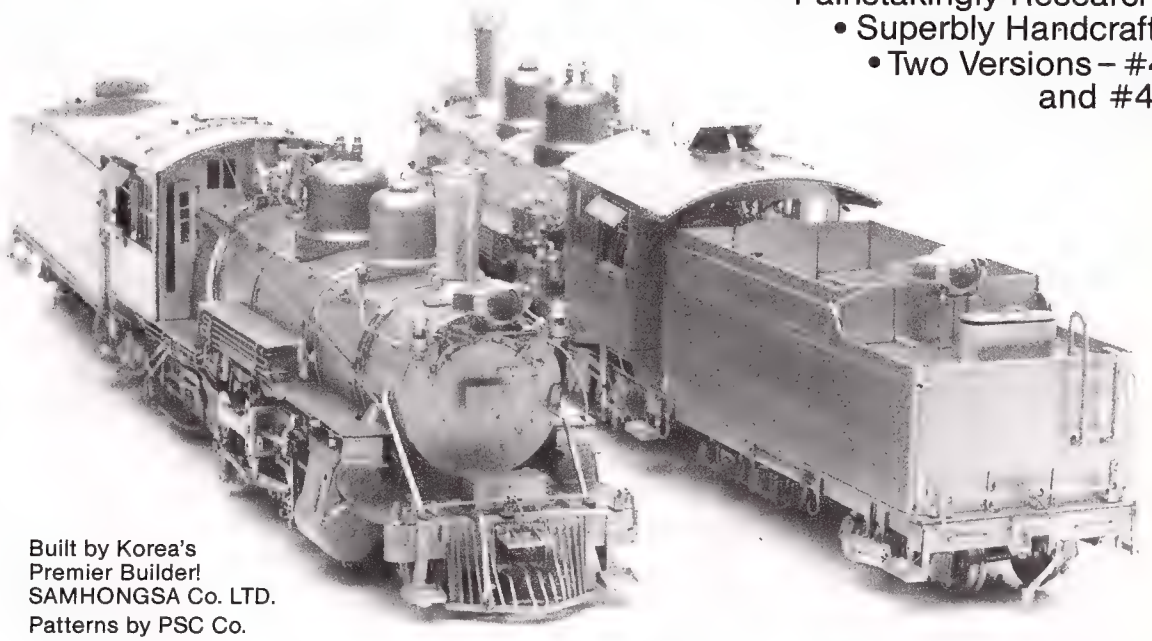

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Abajo Depot
Albuquerque, New Mexico
505/881-2322

Narrow Gauge Hobby Shop
Durango, Colorado
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Ted's Engine House
Pennsauken, N.J.
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BOOKS

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SILVERTON RAILROAD CO'S. — Sloan $3.75
Short history SRR • SG&N • SN, 13 HO plans, maps, 52 pp.

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2 truck RGS Galloping Goose	$10	$15	$20	$30
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D&RG #1 "Montezuma"		$20		$40
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2 foot gauge Baldwin 2-4-4T B&SR6, SRRL8		$20		$40
2 foot gauge SR&RL 23-24 2-6-2		$20	$40	$40
C&S 57-62, 63-70,4-10	$5 each	$10 ea	$10 ea.	cabs
D&RG T-12, C-16, C-18, C-19 C-21, K-36, K-37	Tenders per road set of 2 to 4			
SN 3, 4, 34, RGS 20; Colo. Mid.	$10	$15	$30	

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Catalog & Lettering Guide $1.50 Nn3 Manual $3 SSAE for list.

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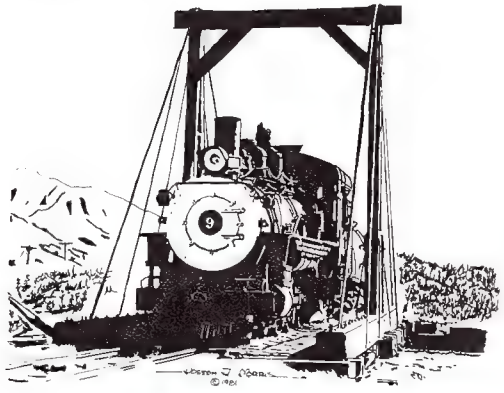

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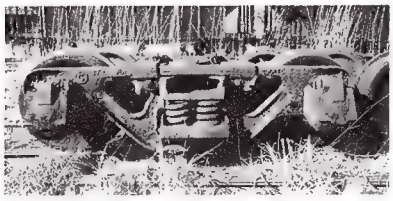

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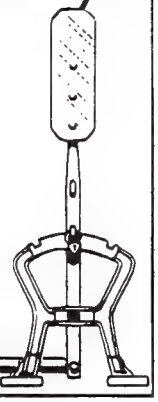

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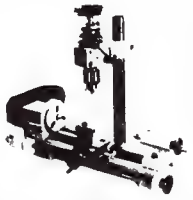

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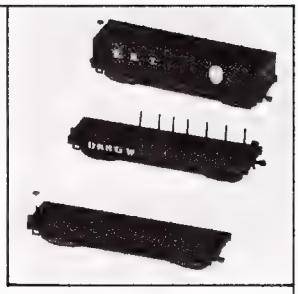

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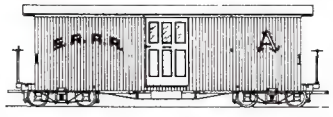

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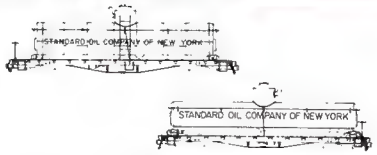

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HOn3 West Side 4-0 wheelbase trucks to go with our new kits. $6.00 per pair.#440

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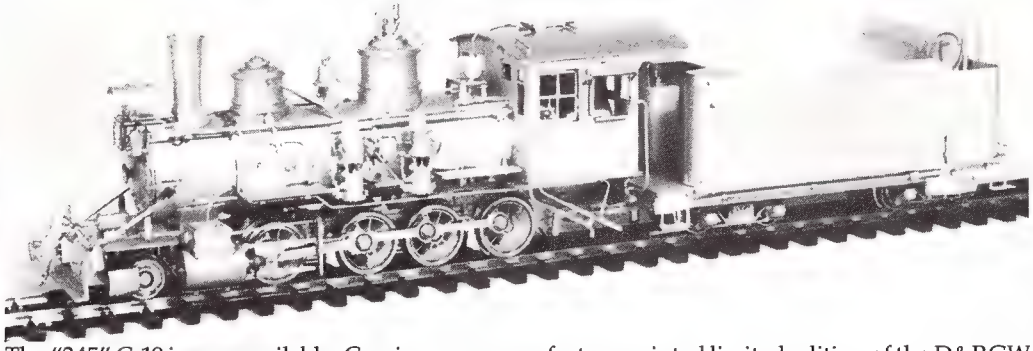
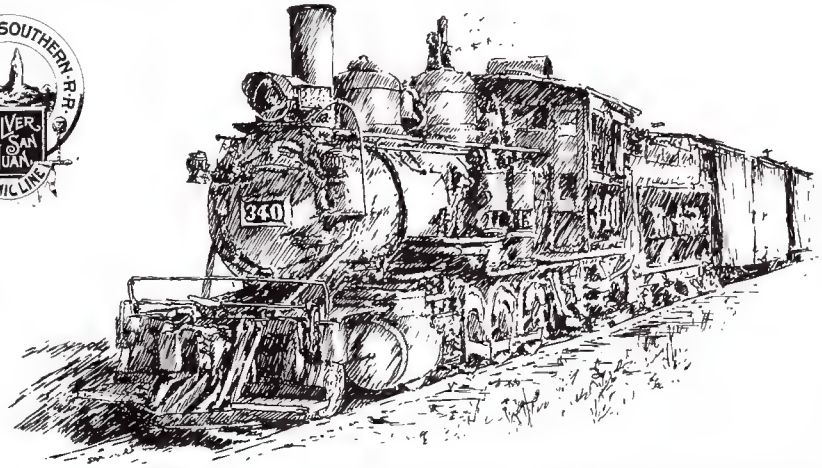
THE RGS "41"
THE "345"
THE "340"

Key Imports Inc.



The "345" C-19 is now available. Coming very soon; factory painted limited edition of the D&RGW "340." WATCH TOO FOR THE RGS "41"...a very special locomotive.



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RIP TRACK

$2.00 for 15 words or less, name and address free. Additional words .10 each. Ad must be paid for in advance. Riptrack deadline is the 15th of the second month preceding the month of publication, i.e. March 15 for the May issue.

Please furnish a street address for the GAZETTE'S private records when you use a P.O. Box number in your ad. Type or print your ads neatly. Thanks.

SCALE DRAWINGS: narrow gauge equipment, logging and shortlines SP, NCNG, C&S, D&RGW. Weathered rail turnouts, HOn3, HO, Sn3, On2, On3. Large SSAE for list. Darr's Scale Models, Box 81, Hawthorne, NV 89415.

VIC STONE FROM PORTSMOUTH: lost your address. Please write back. Jeff & Michelle McKee, 865 #B Kathleen, Orange, CA 92667.

S SCALE standard gauge AB trucks, Code 110 wheels, 42" drivers, S-Sn3 track gauge. SSAE. Miniature Machine, 16041 Penn Ave., San Lorenzo, CA 94580.

WANTED: Equipment Registers of the 1870's, 1880's, 1890's. Will buy or trade books from our stock. Address Library, Colorado Railroad Museum, P.O. Box 10, Golden, CO 80401.

FOR SALE: HOn3 PFM Benson 25 ton shay and Balboa Slim Princess C&S 4 wheel caboose. Asking $250 for both in original boxes. Marsden Haws, 1523 Camino Verde, Walnut Creek, CA 94596. 415/937-1851.

WANTED: "Two Foot Cyclopedia" Vol 1. Also 1 back issue Sept/Oct 1979. D. Von Kanel, 549 Chester Road, P.O. Box 1205, Qualicum Beach, British Columbia, VOR 2T0, Canada.

WANTED: Train Miniature Alco FA and FB body shells, undecorated preferred but will take road names if bodies are mint, will pay 10.00 each. Also want PFM Mich-Cal shay #2 HOn3 trucks complete, will pay top dollar. Lynn Austin, 5455 Plainview Ave., Las Vegas, NV 89122. 702/451-9761 after 5:00 p.m. pst.

NG & SLG BACK ISSUES. Vol. 1 (Mar 75) – Jan 1981 excellent condition. $100 or best offer. Extra copy of July 75. Also six two foot gauge books; two Foot Cyclopedia Vol. 1, 2, 3; 22 John Deer SR&RL plans; More! Call or write for list. After 6 p.m. est. 518/664-4670. C. R. Butcher, 40 Amherst Rd., Riverside, CT 06878.

WANT: Osborn Bay Wharf – track plan, operating information, pictures of woodchip unloading structure on wharf and overall views for model. Andy DaPuzzo, 14 Copperfield Road, Scotch Plains, NJ 07076.

FOR SALE: PFM sound system with modifications including tapes and reverb unit. Superb operating condtion. $520.00. Gary Enghe, 8107 Oakwood Munster IN 46321. 219/972-0535.

FOR SALE OR TRADE: Starr D&RGW Passenger kits, Parlor Buffet, Combine, Closed-Ves. Coach. Pulling domes for C-19 C-21. Balboa K-36. New castings and detailing special Grandt drive and micromotor, PFM sound, complete cab interior, excellent paint, real glass in windows, fireman and engineer. $850.00. Loggers supply 5 amp base with walkaround and extra station. Excellent condition. $210.00 or best offer. Gary Enghe, 8107 Oakwood, Munster, IN 46321. 219/972-0535.

ON3 BRASS SPECIAL: Baldwin 2-6-0 with details added. New from Japan. $180 ppd. The Discount Train Express, P.O. Box 1175, North Highlands, CA 95660.

RESERVATIONS now being accepted for SR&RL 2-6-2 locomotive #24 by Custom Brass. If you decide to purchase #24 from Ric's Etchings when they are ready for delivery you will receive an added bonus to be revealed at delivery. All this in addition to our regular low prices. Send for your reservation today. Quantities are limited. Ric's Etchings, 1413 S.W. 46th St., Pendleton, OR 978-

P.F.M. C&S 2-6-0, 2-8-0 225.00. Willamette $389.00. Rayoner 2-6-6-2 $359.00, San Joaquin Climax $309.00. Westside D&RGW K-27 $145.00, K-37 $225.00, C&S #75 2-8-0 289.00. D&RGW K-28 359.00, C-25 $149.00. C-16 #268 129.00. WSLC #15 Shay 349.00. Precision Scale D&RGW #105 0-6-0T 169.00, Key D&RGW #345 225.00. Feather River Shay 259.00. C&S #71-73 2-8-0 195.00 GEM 2-4-4-2 259.00. Custom Brass D&RGW C-21 #360 159.00. O Scale Hallmark D&RGW #320 Coach, #911 Business Car 125.00 each. Custom Brass 44 ton switcher 249.00. SR&RL Baggage, Comb., Coach, Set 329.00. Precision Scale WSLC Logging Caboose 41.50, D&RGW 6500 Flat Car kit 45.00. Sunset EBT 2-8-2 389.00. 70 ton Diesel 329.00. Westside W&M 3 truck Shay 999.00 #3 Heisler O and On3 trucks 275.00. PFM Hilcrest 3 truck Climax 675.00. Reserve your sound system at 659.00. SSAE for complete list over 200 pieces in stock at all times. H&H Hobby Sales, 4121 S. Tamiami Trail, Sarasota, FL 33581. Phone 813/922-7711.

FOR SALE: Rare books. Rails around Gold Hill $265, Colorado Midland $240, Switzerland Trail of America $145, Denver South Park and Pacific (original) $350. Rob Smith, 324 Tall Pine Lane, Boulder, CO 80302.

FOR SALE: "Rails Around Gold Hill" - Cafky. "Pictorial Supplement to Denver South Park & Pacific". "Colorado Midland" - Cafky. Jackets show normal wear. Seam on "Gold Hill", lightly torn top to bottom between title page and following page. First irresistible offer to Lou Larson, P.O. Box 5688, Incline Village, NV 89450.

WRITE AWAY! Want something different in the way of letterpaper, notepads and scratchpads? Now, it's available! We are starting a line of reproduction letterheads of Colorado Railroads, both standard and Narrow Gauge, as well as railroads from all over. These will be exact reproductions, all taken from originals, and most will be from the 1870-1910 period, with several newer styles also. "Customizing", by inserting your name as Superintendent or whatever, will be available. For notepads and scratchpadeds, a large line of exact reproductions of telegram forms is being developed, from the many styles used over the years by the RGS, D&RG, C&S, DL&G, etc. Also being reproduced are several different train order forms, such as D&RG, DL&G, CM, etc. In the works is a line of reprints of rare and historic timetables and other rare items, the first of which will be a DSP&P public timetable of June 1880. For complete details, please send a #10 SSAE for our flyer. EHP Productions; 403 - 23rd Street, #5, Golden, CO 80401.

FOR SALE: Sunset On3 K-28, TRO, $650.00. Darryl Huffman, SRA Box 1411, Anchorage, AK 99502. 907/345-2516.

FOR SALE: U.S. Hobbies On3 13 Ton Shay, new, $225.00. Westside Models On3 CONX #10 tank car, needs repainting, $60.00. Dan Reagan, 7416 S. Ivay Way, Englewood, CO 80112.

FOR SALE: PFM Sound System II. Mint in box, $295.00; Iron Horse 16-ton T-Boiler Shay, mint, 575.00; Complete set of the **GAZETTE**, mint in storage boxes, 195.00. Steve Barmash. 10500 Rockville Pike, Apt. 110, Rockville, MD 20852. 301/493-5109.

OLD, RARE HO-HOn3 brass. Loggers: Shays, Climax, Heislers, Vulcan Duplex, Willamette, Minarets, Mallets, Mikes, Puffing Billys, 0-4-0's to 2-8-8-2's. Juice: Little Joe, Bipolar, Oregon Electric, Metroliners, BART, Doodlebugs: Brill, Hall-Scott, McKeen, Ma & Paq, RDC's. SSAE for list, Hughes, 4707 West Roberts Way, Seattle, WA 98199.

FOR SALE: PFM Sn3 C-16, new. Price 240.00. Doug Rochefort, 504-71 Grande Ave., London, Ontario, Canada. N6C1M1. 519/679-8971.

FOR SALE: Number 227 of 750, signed first edtion of *Silver San Juan* by Mallory Hope Ferrell, including slip cover, separate color prints. Brand new. Best offer over $100. Before September 9, 1981. John Engstron, Box 696, La Mesa, CA 92041. 714/464-0116.

FOR SALE: Number 510 of 750, signed first edition of *Silver San Juan* by Mallory Hope Ferrell, including slip cover, separate color prints. Brand new. Best offer over $100. Before Sept. 9, 1981. John Engstrom, Box 696, La Mesa, CA 92041. 714/464-0116.

FINE SCALE KITS: For sale to best offer, #25 Water Tower, #30 Signal Tower, #65 Jacobs Fuel #115 Coal & Sand Shed, #125 Water Tank & Tool Shed, #44 Westside Lumber Snow Plow by Durango Press. D. Arnold, 12 Neposet Rd., Wilm, DE 19810.

FOR SALE: HOn3 Kidder Porter Mogul $125, PFM K-28 (1970) $275, PFM K-27 (silver box) $250. All mint with original box TRO. Doug Arnold, 12 Neponset Rd., Wilm, DE 19810. Wed & Fri eves 302/652-3258.

FOR SALE: On3. All new mint, shipped postpaid, no personal checks, please. Sunset C&S-RGS #94 $435.00, West Side D&RG, short caboose $150.00, Derrick OP (only) $85.00, Durango Press RGS-plow #02 built, painted, weathered as RGS, beautiful $125.00, PSC K-27 complete tender frame $50.00, Crossing Gate D&RG Box Car, HI-side gon $28.00 ea., Grandt drop bottom gon's (have 7) $25.00 ea (all for $150.00). York, 3 stall Round House w/extra stall $85.00, Boiler House $30.00, Blacksmith Shop $40.00 (all 3 for $150.00). MM DSP&P Gunnison Depot $45.00, CHB Lathe, Vir. Drill, Shaper $15.00 ea., Miller $16.00, Grinder $9.00 (all for $65.00). Earl Failla, P.O. Box 1179, Colfax, CA 95713.

WANTED: One Kemtron #6146 HOn3 C-16 lead truck w/24" wheels. Kevin Hassing, 318 Remington Loop, Danville, CA 94526.

FOR SALE: *Finelines,* Jan. '68 - Jan. '75 (43 issues). Also, *Model Railroader,* 1961-70. Best offer(s) or trade for On2. Carl Spirito. 52 King St., Saco, ME 04072.

ON3 – PFM K-27 TRO $995, Balboa C-21 with KTM idler gear box $390, Custom built Central Loco $325, U-25-B $300, USH Pregnant Whale Tank car $85, Kadee Track Spiker Code 100 $50. R. Schoelkopf, 1716 Busse Rd., Marengo, IL 60152. 815/943-5650.

WANTED: Virginia and Truckee Brass Locomotives, particularly PFM #11, 4-4-0 (modern), and #26, 4-6-0. Michael Laine, P.O. Box 11070, Salt Lake City, Utah, 84147.

WANTED: Info on Class A Climax. Will pay reproduction costs. Especially wish to buy, borrow, or rent "Climax – An Unusual Locomotive". Keith Douglass, 52 Wylly Ave., Savannah, GA 31406.

FOR SALE: Westside HOn3 Westside Lumber #8 Shay 325.00. PFM Class B Climax 235.00. PFM Ma & Pa 2-8-0 $140.00. All unpainted in boxes. Gary Wiemann, 18320 Colima Rd., Rowland Heights, CA 91748. 213/964-7185.

FOR SALE: NG Slides from Al Chione collection, Photo Packs N.G. Equipiment. Books, magazines, Railroadiana, etc. SSAE. State lits wanted (slide or book). Double postage for both lists. Jon R. Guardis Jr., 248 Mohawk Dr. – Mt. Vernon, McKeesport, PA 15135.

FOR SALE: Westside HOn3 268, 278, super super detailed, priced right. SASE for details. R. J. Chilton, P.O. Box 143, Abington, PA 19001.

DSP&P HOn3 custom cast wood bean trucks, with & without brake beams, SASE for details. Robert J. Chilton, P.O. Box 143, Abington, PA 19001.

SN3 KIT BASHERS have Ambroid set of 4 open platform 67' passenger cars. Mantua Brass 50' open platform cars, Varney dockside, Diecast Roundhouse 0-6-0, Mantua little 6 Brass Mantua 2-6-0, Ackoni Ma & Pa 2-8-0, Westside V&T #26, others want On3. James Reno, P.O. Box 13311, So. Lake Tahoe, CA 95702.

FOR SALE: Westside and United K-36's, C/P, Micro Motors and gear heads. Used Sagami motors, two thirds price. SSAE for list. Bill Florent, 411 Edith Blvd., Huntington IN 46750. 219/356-4270.

ON3 FOR SALE: Mint collection brass locos and cars, structures, flex-track, turnouts, switch machines, throttles, sound, etc. Reasonable. SSAE for list. Rene Norell, 99 Oak St., Closter, NJ 07624.

FOR SALE: All listed is new and On3. Two pair of Grandt Pass. truck kits $15.00 pass car details in brass, two sets, $25.00 each. Nine Code 83 flex sections, $10.00, 3L and 3R Code 83 turnouts, $4.50 each. NWSL Spartan 4-4-0 (removable cab) $200.00. NWSL Spartan 2-6-0 $175.00. LaBelle On3 pass. car kits. Three at $28.00 ech. MM Gallows turntable $35.00. Chooch freight station $45.00. V&T C&S water tank, $30.00. MM section House, $34.00. MM Gunnison Depot, $39.00. Detail parts for one engine as above $25.00. Write: John McMillan, 7726 S.W. 53rd Pl., Gainesville, FL 32601.

FOR SALE: Almost 1000 narrow gauge slides by Richard Kindig and Richard B. Jackson as reproduced by Al Chione. Subjects include RGS, C&S, much Rio Grande. 9 complete sets of 100 each at $45 per set. 1 set of 83 each for $35. Excellent modelers aids. Buy any 5 sets and get a D&RGW On3 car kit and extra goodies from Grandt and Back Shop. SSAE for list. Chuck Conway, 1775 Teller St., Lakewood, CO 80215.

FOR SALE: HOn3 Lambert C&S 2-6-0 w/beartrap, $200.00; Westside HOn3 20-ton shay, $225.00; Timberline "Granite" Depot kit, $75.00. Dave Nitsch, 1313 So. 19th St., Sheboygan, WI 53081.

WANTED: FSM kits #55 and #115; Volume One, Number One of Mainline Modeler. Dave Nitsch, 1313 So. 19th St., Sheboygan, WI 53081.

CUSTOM DETAILED WESTSIDE C-25 with Micromotor, 11:1 gear box, full cab interior, PFM Sound, Plow with coupler, Removable cab, sides & back, and custom painted, $650. Mike Bronstein, 6353 Capricorn Avenue, Agoura, CA 91301. 213/889-4956.

FOR SALE OR TRADE: On3 logging rolling stock and equipment. All new untouched kits and brass. Interested in trades on On3 D&RGW/RGS equipment, buildings, or ? Call or write for list. Jeff Noll, 426 Westminster Ave., Ventura, CA 93003. 805/656-2266.

WANTED: HOn2½ steam locomotive by AHM or any HO-30" gauge items. Parts wanted as well or original photos. Contact Brick Price Movie Miniatures, 5115 Douglas Fir Dr., Suite F, Calabasas, CA 91302. 213/992-8811.

FOR SALE: HO-HOn3 structure and rolling stock kits; brass locos and caboose. SSAE for list. Steve Haskew, 155 Hardy Rd., Johnson City, NY 13790.

FOR SALE: HOn3 WMC Westside Shay #8, TRO, $315.00. PFM D&RGW Water Car #0470, Mint, $45.00. Marden Mull, 1394 Tally Ho Lane, Norco, CA 91760.

FOR SALE: On2 pulpwood racks with metal truss rods, removable racks, board by board construction, unpainted, less trucks & couplers; SR&RL 325, 326, 332 – $24.50; 219, 221, 240, 264, 303, 309, 328, 330, 357 $28.50; 253, 254, 263, 268 $26.50. Mark D. Hall, 1063 Washington St., Whitman, MA 02382.

FOR SALE: Books – Titan of the Timber, and Steam and Thunder in the Timber, by Koch, identical numbered set, good condition, $245.00. Marden Mull, 1394 Tally Ho Lane, Norco, CA 91760.

WANTED: We need accurate information and photos of the E.B.T. transfer crane at Mt. Union, PA. If you have detail photos of the upper part of the crane or accurate measurements of this structure including the enclosed stairs that ran to the top please contact us immediately at 301/655-5568 or write to White Ground Model Works, P.O. Box 273, Randallstown, MD 21133.

FINE SCALE #145 coal-tower, N.O.B., 60.00 or trade for #100, #115, #125. Call Dave at 703/354-2679, after 4.

FOR SALE: On3/On2 SR&RL 3 stall engine house, Kingfield, Maine. C. Morse Jr., Box 758, Wareham, MA 02571.

GAZETTE, Vol. 1, have 4 each #1, #2; 2 each #3, #4. All still in unopened original **GAZETTE** mailing envelopes. For sale individually to best offers rec'd by Sept. 30. Reply D. Arnold, 12 Neponset Rd., Wilm, DE 19810.

WANTED: *Sugar Trains* by Conde First Volume – not the pictorial. Please submit condition and price. Brian Gelineau, P.O. Box 202. Leeds, MA 01053.

FOR SALE: *The Shay Locomotive,* Michael Koch. (w/o dust jacket, good. cond.) *The Silver San Juan,* Mallory Hope Ferrell (Reg. edition w/inscription.) Make offer. Send SASE for list. Charlie Ward, 7913 Empire Grade, Santa Cruz, CA 95060.

HELP! Our typesetter wants to know where he can find a model of the 1934-35 Chrysler (or Dodge) Airflow, any scale. Replies to GAZETTE, Flying Fingers Dept.

WANTED: Two Foot Cyclopedia, Ride the Sandy River, Rails Around Gold Hill, South Park Supplement. State condition and price. Jeffrey L. Pecka, 99 Corona #601, Denver, CO 80218.

FOR SALE: PFM Sound System Reverb, modified by Gordon North, 3 tape inputs, 3 cassette recorders, 3 cassettes, automatic air pump and motion controlled by throttle. $535 postpaid. Phil Bender, 2420 Exbourne Ct., Walnut Creek, CA 94596. 415/932-5596.

FOR SALE: All used unless otherwise noted. Balboa Katsumi Porter mogul, constant lights fair black paint, lettered DRGW #13, original box, nice $130.00. United items: Sierra 2-6-6-2 painted – fair. KD's $200.00, V&T 4-6-0 #26 original run – has can motor in tender and runs great. Fair paint $130.00, Oregon-American painted nice, and lettered "White River Lumber Co. #105" Kd's $125.00. Hallmark items: Short ATSF tender new $25.00, Madam Queen tender, new, $30. Wabash Pacific tender new $28.00. S.P. 2-8-0 C-24 fair paint private road name, KD's $125.00. ATSF 2507 Japanese 2-8-0 $128.00. Colorado Midland 2-8-0 and 4-6-0 both modified to run well and beautifully painted. Russian iron boiler jackets with brass bands letterd C.M. $135.00 each, $260 the pair. Westside items: S.P. 10,000 gal oil tender, new – slight tarnish $26.00, U.P. 10,000 coal tender new $34.00. Westside HOn3 #15 new $322.00. SPT-1 with can motor and rectangular tender. Fair paint S.P. #2209 $130.00 Old Japanese ATSF 4-6-4 Tenshodo (?) painted $150. PFM 8 wheel Buckeye trucks $12.50. NKP CB&Q 4-6-0 runs nice, good paint, Burlington lettering, herald, and decals #3001-$125.00. Same loco new, unpainted, $121.00. Overland U.P. 4-10-2 new $175.00. NorthWest Short Line items: Removable cab Spartan 4-4-0 or 2-6-0 new $162. Cotton belt 4-4-2 and drive kit. Pilot loose (new) $94.00. All following are new On3 Kits: Simpson Westside water car $30.00, Precision coach #319 $100, Winter #OC $45.00, HI-Hercules $21.00, Whistle Stop derelict C-16 $38.00, Durango Press Westside Plow $34.00, RGS #01 flanger $45.00. Crossing Gate flat $25.50, gon $25.50. Coach $50.00, Parlor $52.00. Please send certified funds. I ship insured by U.S. mail. Satisfaction guaranteed. Ship back within 5 days if dissatisfied and I'll refund your money – you pay shipping both ways. Doc Donaldson, Great Southern Works, Rt. 1, Box 753AA, Reserve, LA 70084. 504/536-4373.

FOR SALE: On2 flatcars with metal truss rods, board by board construction, unpainted, less trucks and couplers – SR&RL 323 $21.50. SR&RL 360 $18.50. F&M and Eustis Railroad flats with metal brake rigging F&M $17.50, ERR $22.50. Mark D. Hall, 1063 Washington St., Whitman, MA 02382.

CUSTOM PAINTING of steam locomotives. Send SSAE for price schedule, or state requirements and a quote will be sent to you. Send SSAE to John McMillan, 7726 S.W. 53rd Pl., Gainesville, FL 32601.

WANTED: Photographs of D&RG locomotive #228, circa 1894 to 1926. Would prefer duplicate negatives or 5x7 copies. Call collect area code 303 420-2625 or write W. C. Metcalf, 9531 Sierra Dr., Arvada CO 80005.

HAVE YOU A KEYSTONE NWSL SHAY that won't work? If interested in replacing original white metal drive train parts with ones of brass, send SSAE to Reimer, #2 Bignall Bay, Port Moody, B.C., Canada V3H 3N5.

OLD SHAYS WANTED: International, Pacific Pike, Austin, Max Gray, PFM. Any scale/condition. Charles Crehore, Suite 2200, 100 W. Washington, Phoenix, AZ 85003.

FOR SALE: large supply of Camino scale lumber. Mostly x12 and larger. HO and O scale plus dimensional sizes. All packaged in 12 inch lengths. HO and dimensional $.50 per package. O scale $.60 per package. Ron Van Orden, 1090 Oak Street, Junction City, Oregon, 97448.

MAGAZINES & BOOKS, also search service, SASE, Skokut Search & Find, P.O. Box 1345, Glendora, CA 91740. Phone eves 213/335-4919.

FOR SALE: $1 each 1/48 BLW, Lima Number, Builders plate etchings from Hobby Barn, Kemtron, Extras outside my needs. BLW Number plates, 12" and 16" dia. Send SASE with wants. W.B. Stoddard, 3434 Crane Way, Oakland, CA 94602.

STOCK CERTIFICATES & BONDS pre-1930 bought, sold and traded, Buttonwood Galleries, P.O. Box 1006F, Throggs Neck Station, New York, NY 10465.

Nn3 BOX CAR KIT, Frt. and Pass. Trucks. SSAE for sheet. Nelson W. Gray, P.O. Box 94-G, Jamesville, NY 13078.

WANTED: Old stock certificates & bonds – any quantity. Also annual passes & timetables. Please write Ken Prag, Box 531NG, Burlingame, CA 94010.

S SCALE standard gauge AB trucks, code 110 wheels, 42" drivers, S-Sn3 track gauge. SSAE. Miniature Machine, 16041 Penn Ave., San Lorenzo, CA 94580.

HAVE O/On3, HO/HOn3 tradeables, want HO logging, NWSL Weyerhauser #108, Booth-Kelley #2, Minaret, Penn. Term 2-6-2T, PFM D&SL 2-6-6-0 (Hi-Grade), Rayonier #120, various PFM and WSM Shays. NWSL Russell 20' log cars and Kadee log cars and cabooses. 2 stamps brings listing. John Joy, 5 Duffield Road, Coram, NY 11727.

"THE ALLEY POPPER": New book on two PA shortlines. Paperbound, 76 pp. $6.00 postpaid. Richard D. Adams, 56 Hill Cress Dr., Victor NY 14564.

RAILROAD BOOKS: Rare, used, new. List for SSAE. Keystone Books, Box 2037, Princeton, NJ 08540.

FOR SALE: On3 IHM Mich-Cal Shay, mint condition, original box, $600.00. Alan D. Carroll, 20 Elm Court, Andover, MA 01810.

FOR SALE: Maine two-foot 5x7 photographs, 120 WW&F $75.00. 70 early Edaville $40.00, 270 B&SR $165.00. Alan D. Carroll, 20 Elm Court, Andover, MA 01810.

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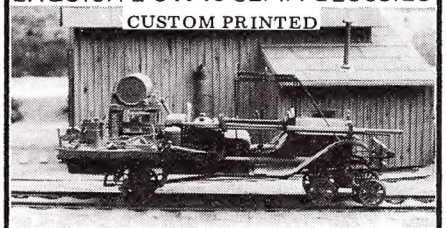

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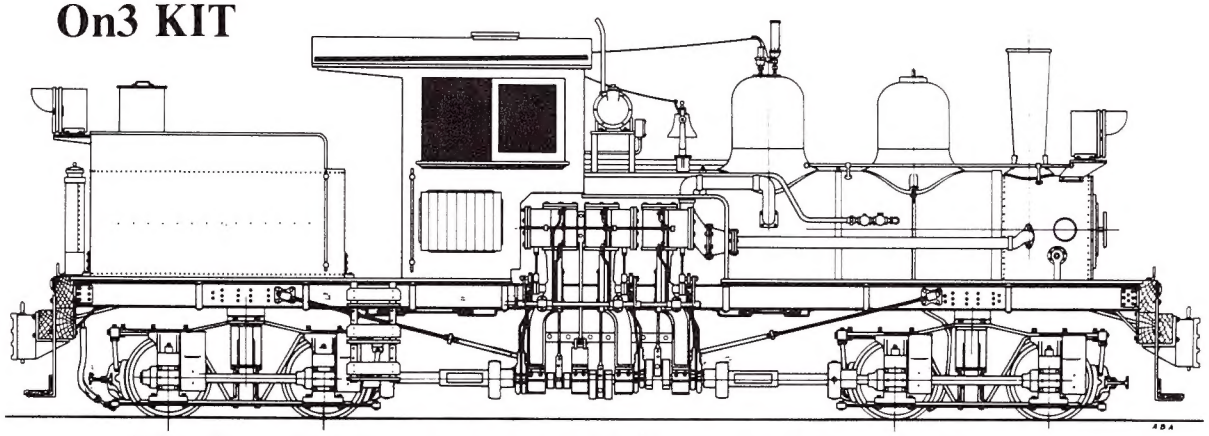

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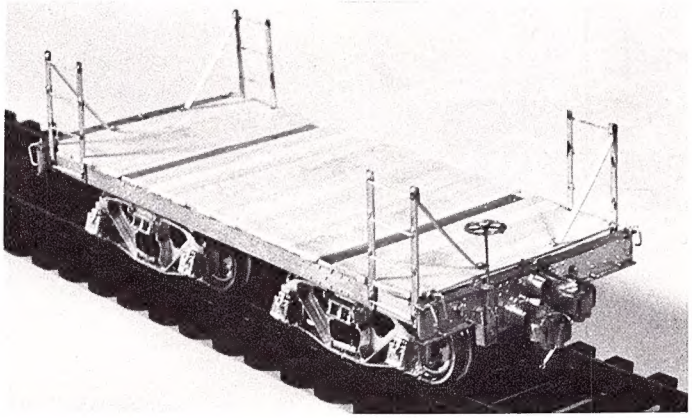

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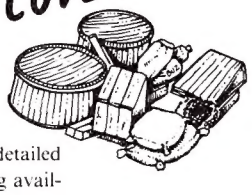

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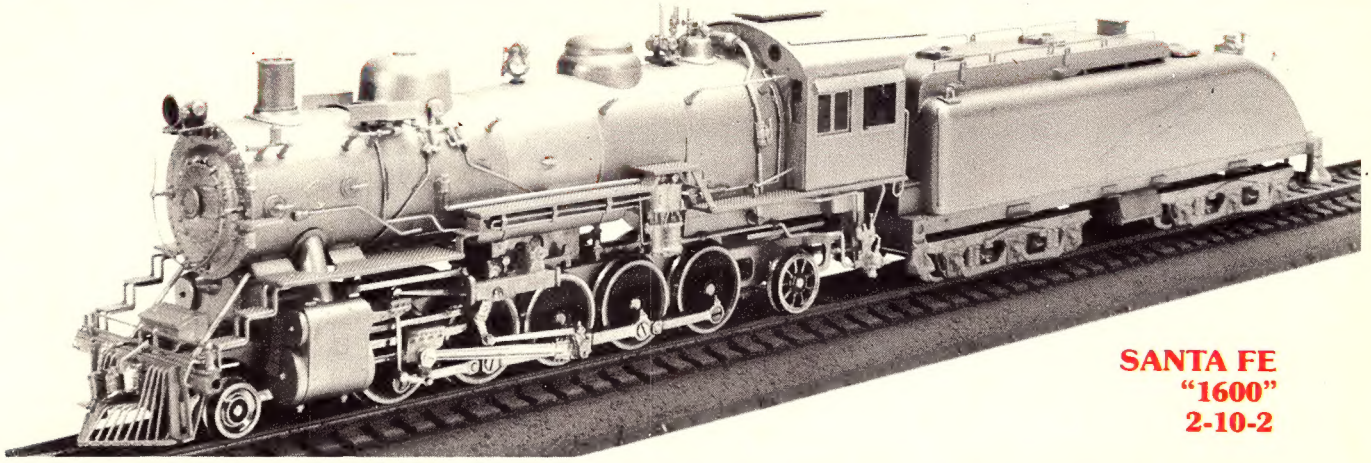
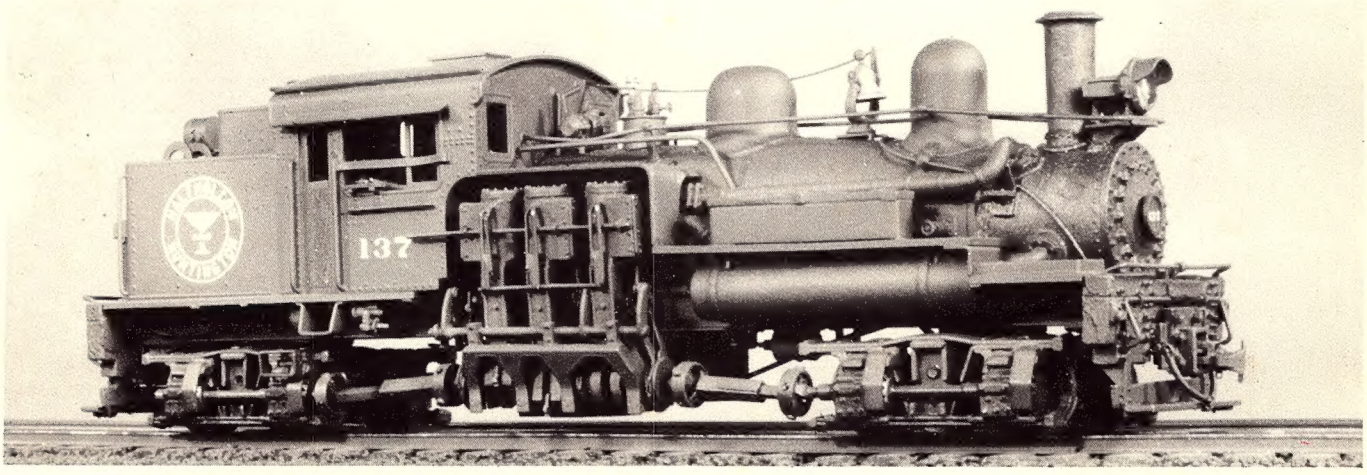


SANTA FE "1600" 2-10-2

Santa Fe's branchline operations included some pretty hefty power when you get right down to it. The "1600" class 2-10-2 was squat, small drivered and of short wheel base. With a relatively light axle loading these Santa Fe types ran as road switchers both on and off the main line. Westside's "1600" is modeled after the "1624" with one of those famous turtle back tenders that once graced the rear of a 2-10-10-2.

HO Scale



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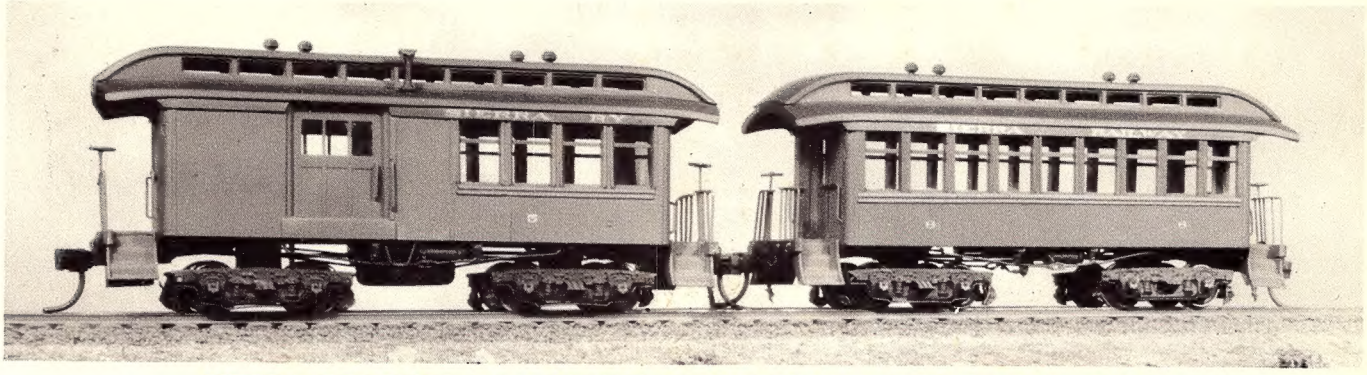

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